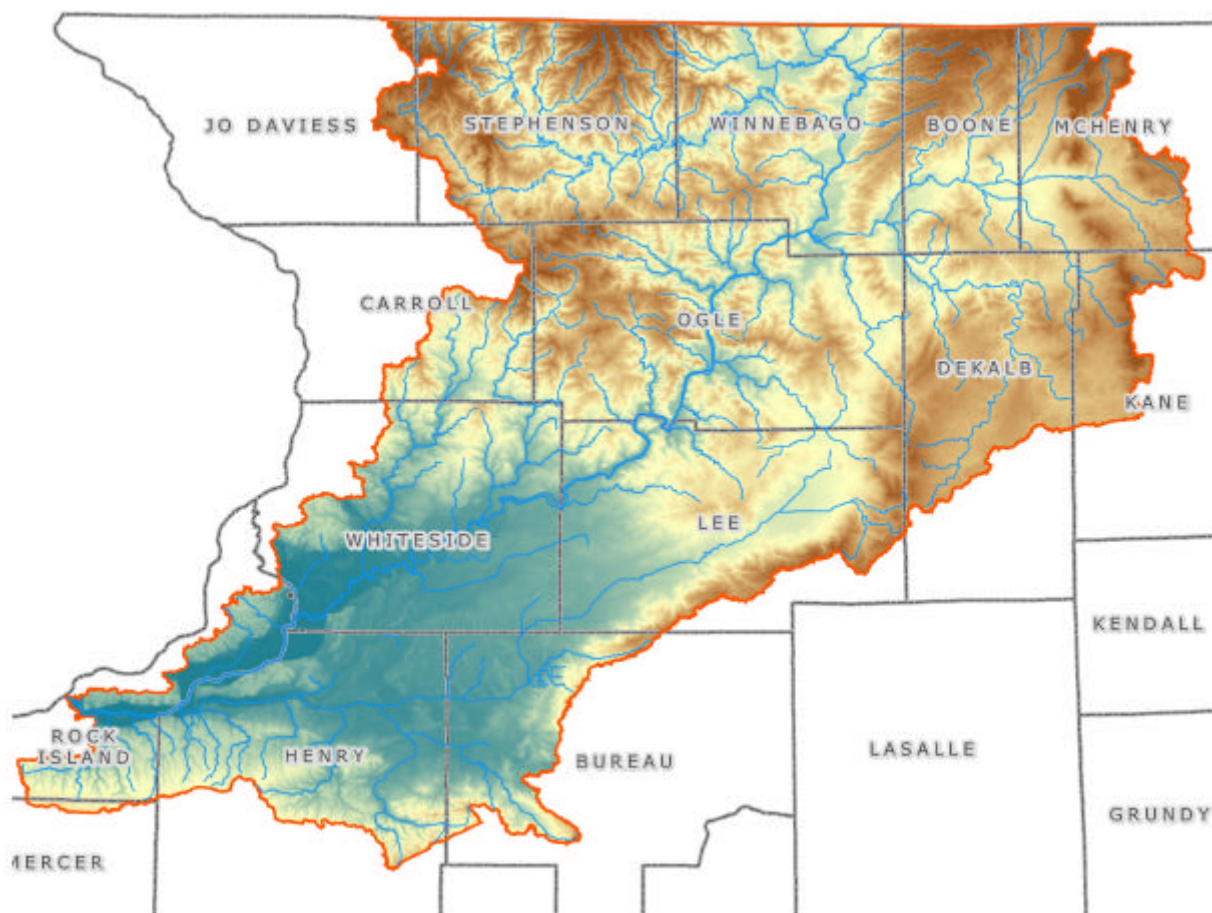




# Rock River Basin Assessment

An Overview of the Rock River Watershed in Illinois

March 2006



# **Rock River Basin Assessment**

## **An Overview of the Rock River Watershed in Illinois**

**March 2006**

**State of Illinois  
Environmental Protection Agency  
Bureau of Water**

## **Notice of Most Current Data Available**

Since this report was started Illinois EPA has completed the draft 2006 Integrated Report. The Integrated Report includes Illinois EPA's reporting requirements for Sections 303(d), 305(b) and 314 of the Clean Water Act. This report will replace the Illinois Water Quality Report, more commonly known as the 305(b) report.

Since water resource data take time to gather and process, each assessment cycle reflects up to a two-year data lag. Generally, the 2006 Integrated Report is based on new information that became available since the last Illinois Water Quality Report was released.

The 2006 Integrated Report (once final) will be available at Illinois EPA's Surface Water Section's webpage –

<http://www.epa.state.il.us/water/surface-water/index.html>

## Table of Contents

<b>I.</b>	<b>Introduction and Purpose .....</b>	<b>1</b>
<b>II.</b>	<b>Location and Setting .....</b>	<b>2</b>
<b>III.</b>	<b>Land Use: Current and Trends .....</b>	<b>5</b>
<b>IV.</b>	<b>Natural Resources .....</b>	<b>10</b>
	Soils .....	10
	Geology .....	12
	Surficial Geology and Glacial History .....	12
	Bedrock Geology and Topography .....	13
	Major Aquifer Systems and Potential for Aquifer Recharge .....	14
	Natural Areas .....	17
	Threatened and Endangered Species .....	19
	Surface Water Resources .....	20
	Streamflow .....	21
	Use Assessments, Causes and Sources .....	22
	Impaired Waters/303(d) List .....	27
	Illinois EPA Surface Water Monitoring Programs .....	33
	NPDES Self-Monitoring Program .....	35
	Groundwater Resources .....	37
	Groundwater Use .....	37
	Groundwater as Source Water .....	38
	Groundwater Monitoring Programs in Illinois .....	42
	Ambient Network of Community Water Supply Wells .....	42
	Overall Use Support .....	43
	Individual Use Support .....	43
	Potential Causes of Less Than Full Support .....	43
	Pesticide Monitoring Subnetwork of the CWS Network .....	45
	Illinois Department of Agriculture Pesticide Groundwater Monitoring Network .....	46
<b>V.</b>	<b>Threats to Environmental Quality and Regulatory Responses .....</b>	<b>50</b>
	Point Source Discharges .....	50
	NPDES Permit Program .....	50
	Compliance/Enforcement Activities .....	51
	Field Operations Strategy .....	52
	Operator Certification Program .....	52
	State Construction/Operating Permit Program .....	52
	Nonpoint and Combined Point/Nonpoint Issues .....	54
	Agriculture .....	54
	Agriculture Related Permits .....	58
	Urbanization .....	60
	Illinois EPA's Facility Planning Area .....	61



NPDES Stormwater Permit Program .....	62
Land Pollution and Other Potential Threats .....	71
Technology Control Regulations .....	72
Mining .....	74
Hydromodification .....	75
Dredge And Fill Permits .....	78
<b>VI. Programs and Efforts for Water Quality Protection and Restoration .....</b>	<b>79</b>
Illinois EPA's Watershed Management Program.....	79
Watershed-based Planning.....	79
Existing Watershed Planning Groups.....	80
Funding Mechanisms .....	86
Nonpoint Source Pollution Control Program.....	87
Illinois Clean Lakes Program.....	90
Priority Lake And Watershed Implementation Program.....	91
Lake Education Assistance Program .....	92
Water Pollution Control Loan Program.....	93
Public Water Supply Loan Program .....	94
Agricultural Cost Share Programs and Administrative Acts.....	95
Environmental Quality Incentives Program (EQIP) .....	95
Wetland Reserve Program (WRP) .....	95
Small Watershed Program .....	96
Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP).....	97
Agricultural Areas Conservation and Protection Act.....	97
Conservation 2000 .....	99
303(D)/TMDL Program.....	102
Regional Groundwater Protection Planning Program.....	103
Northern Groundwater Protection Planning Region .....	103
Northeastern Groundwater Protection Planning Region .....	105
Wellhead and Source Water Protection Programs.....	106
Groundwater Restricted Use Ordinances.....	108
<b>VII. Next Steps.....</b>	<b>109</b>
<b>VIII. Literature Cited .....</b>	<b>110</b>

## **IX. Appendices**

- A. Land cover in sub-watersheds of the Rock River Basin (Illinois portion only).
- B. Soil associations in the Rock River Basin
- C. Soil Types in the Rock River Basin
- D. Soil Hydrologic Groups in the Rock River Basin
- E. Glacial Moraines in the Rock River Basin
- F. Glacial Episodes in the Rock River Basin
- G. Quaternary Geologic Materials in the Rock River Basin
- H. Bedrock Geologic Materials in the Rock River Basin
- I. Karst Areas in the Rock River Basin
- J. Public land in the Rock River Basin (Illinois portion)
- K. Illinois Natural Areas in the Rock River Basin
- L. Illinois Nature Preserves in the Rock River Basin
- M. Threatened and endangered species in the Illinois portion of the Rock River Basin
- N. USGS Gauging Stations in the Illinois Portion of the Rock River Basin
- O. Illinois Water Quality Standards Applicable in the Rock River Basin.
- P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004
- Q. Illinois EPA sampling stations in the Rock River Basin
- R. Fish collected at Rock River mainstem sites, August, 2003
- S. Fish collected in the Green River Watershed, 1999
- T. Fish collected in the Kishwaukee River watershed, 2001
- U. Fish collected in the Pecatonica River watershed, August, 2002
- V. Fish collected at Rock River direct tributaries, August, 2003
- W. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998
- X. Macroinvertebrates collected in the Green River Basin, 1999
- Y. Macroinvertebrates collected in the Kishwaukee River Basin, 2001
- Z. Macroinvertebrates in the Pecatonica Basin, 2002
- AA. Source Water Protection Areas in the Rock River Basin
- BB. Ambient Network Well Data for the Rock River Basin
- CC. NPDES permitted dischargers in the Illinois portion of the Rock River Basin
- DD. Permitted Sludge Application and Generation in the Rock River Basin
- EE. Spray Irrigation Permits in the Rock River Basin
- FF. Potential For Nitrate Leaching in the Rock River Basin
- GG. Livestock Density in the Rock River Basin
- HH. Livestock numbers for counties in the Rock River Basin
- II. Potential For Pesticide Leaching in the Rock River Basin
- JJ. Estimated herbicide usage in Illinois counties
- KK. MS4 Permittees in the Rock River Basin by County
- LL. CERCLIS Sites in the Rock River Basin
- MM. RCRIS Sites in the Rock River Basin

- NN. State Voluntary Cleanups in the Rock River Basin
- OO. LUST Sites in the Rock River Basin
- PP. TRI Sites in the Rock River Basin
- QQ. Landfills in the Rock River Basin
- RR. Potential Sources within WHPA's in the Rock River Basin
- SS. Oil and Gas Lines in the Rock River Basin
- TT. Surface and Underground Coal Mines in the Rock River Basin
- UU. Channelized Streams in the Illinois portion of the Rock River Basin
- VV. Federal Funding Sources
- WW. Special Exemption Permits for Community Water Supplies in the Rock River Basin
- XX. Groundwater Restricted Use Ordinances in the Rock River Basin
- YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin
- ZZ. Prime Farmland Definition and County Totals

## List of Tables

### Table

1	USGS eight digit hydrologic units in the Rock River Basin.....	2
2	Illinois counties in the Rock River Basin.....	3
3	Land Cover in the Rock River Basin, by state .....	5
4	Land cover in the Illinois portion of the Rock River Basin, 1995 and 2000 .....	6
5	Presettlement land cover in the Illinois portion of the Rock River Basin..	9
6	Prime Farmland acreage in the Counties that contain a portion of, or are completely within the Rock River Basin .....	11
7	Natural Divisions in the Rock River Basin .....	17
8	USGS Gauging Stations in the Illinois Portion of the Rock River Basin.....	22
9	Rock River Basin Individual Use Support for Assessed Streams, 2004 .....	24
10	Rock River Watershed Individual Use Support for Lakes, 2004.....	27
11	Summary of chemical, physical, and biological environmental indicators used in Illinois EPA surface water monitoring programs .....	37
12	Fresh Groundwater Withdrawals (in MGD) within counties of the Rock River Basin .....	39
13	Minimum reporting levels, action levels and groundwater reference values for analytes for IDA Pesticide Monitoring Network wells .....	49
14	Soil loss in crop fields in the Illinois portion of the Rock River Basin, 2004.....	58
15	Tillage practices in crop fields in the Illinois portion of the Rock River Basin, 2004.....	58
16	Status of Sediment and Erosion Control Ordinance development in the Counties that contain a portion of, or are completely within the Rock River Basin .....	64
17	Numbers of Potential Land Pollution Sources within the Rock River Basin.....	72
18	Coal mines in the Rock River Basin .....	75
19	Dams on the Rock and Kishwaukee Rivers .....	76
20	Illinois stream segments in the Rock River Basin impaired by hydromodification .....	78
21	401 Permits Approved by Illinois EPA in the Counties that contain a portion of, or are completely within the Rock River Basin .....	79
22	LEAP funding in the Rock River Basin .....	93
23	Water Pollution Control Loan Program Loans in the Rock River Basin.....	94
24	Public Water Supply Loans in the Rock River Basin .....	95
25	Agricultural Areas in the Counties that contain a portion of, or are completely within the Rock River Basin .....	99

26	Conservation Practices Funds spent in the Counties that contain a portion of, or are completely within the Rock River Basin.....	101
27	Streambank Stabilization and Restoration Program Funds spent in the Counties that contain a portion of, or are completely within the Rock River Basin .....	102
28	Groundwater Restricted Use Ordinances in the Rock River Basin.....	109

## List of Figures

### Figure

1	Location of the Rock River Basin in Illinois.....	4
2	Land cover percentages in the Illinois portion of the Rock River Basin...	6
3	Comparison of land cover in the watersheds and subwatersheds of the Rock River Basin.....	8
4	Map of Wetland Areas in the Rock River Basin.....	9
5	Major Sand and Gravel Aquifers in the Rock River Basin .....	15
6	Major Shallow and Deep Bedrock Aquifers in the Rock River Basin.....	15
7	Aquifer Recharge Potential in the Rock River Basin .....	16
8	Nature Preserves, Public Lands and Natural Heritage Sites in the Rock River Basin.....	18
9	General Location Map of Threatened and Endangered Species in the Rock River Basin .....	19
10	Aquatic Life Use in Streams in the Rock River Basin.....	20
11	Potential Causes of Impairment of Aquatic Life Use in Rock River Basin Streams, 2004.....	23
12	Potential Causes of Impairment of Fish Consumption Use in Rock River Basin Streams, 2004.....	23
13	Potential Sources of Use Impairment in Rock River Basin Streams, 2004 .....	24
14	Potential Causes of Use Impairment in Rock River Basin Lakes, 2004 .....	26
15	Potential Sources of Use Impairment in Rock River Basin Lakes, 2004 .....	26
16	303(d) Listed Waters in the Green River Watershed.....	28
17	303(d) Listed Waters in the Lower Rock River Watershed.....	29
18	303(d) Listed Waters in the Upper Rock River Watershed.....	30
19	303(d) Listed Waters in the Pecatonica River Watershed.....	31
20	303(d) Listed Waters in the Kishwaukee River Watershed .....	32
21	Public Water Supply Wells within the Rock River Basin.....	39
22	Private Water Wells within the Rock River Basin .....	39
23	Percent of Susceptible Acres In the Rock River Basin.....	41

24	Ambient Network of CWS Wells in the Rock River Basin.....	45
25	IDA Pesticide Monitoring Network wells and depth to uppermost aquifer in the Rock River Basin .....	47
26	General soil loss rates in the Rock River Basin.....	55
27	Rates of conservation tillage in the Rock River Basin .....	56
28	Estimated nitrogen usage by county and nitrate concentration by watershed in Illinois .....	58
29	Facility Planning Areas in the Rock River Basin.....	61
30	Permitted Dams for Lakes and Streams in the Rock River Basin.....	76
31	IDNR Conservation 2000 Grants in the Rock River Basin.....	84

## INTRODUCTION AND PURPOSE

Because of difficulties in implementing the Illinois Environmental Protection Agency's (IL EPA) Facility Planning Area (FPA) program, a consultant (Consensus Solutions, Inc.) was contracted in the spring of 2003 to complete a program evaluation. This evaluation resulted in several recommendations, most notably, that the FPA program should be part of a broader watershed approach to management of water quality. The Agency began an effort to move toward that approach by convening a group of carefully selected stakeholders known as the Basinwide Management Advisory Group (B-MAG) with representation from every side of water quality planning and protection. With support from a larger collection of water quality planning and protection specialists, the group met over a period of nearly six months and developed an extensive list of consensus-based recommendations which were published in *A Framework For A Basinwide Planning And Protection Pilot* on May 30, 2004 (<http://www.epa.state.il.us/water/watershed/facility-planning/index.html>).

The framework document recommended among other things that IL EPA prepare a River Basin Assessment for each of 16 major river basins in the state as a precursor to watershed planning and that these be updated on a five year rotational schedule. The framework further recommended the first basin assessment be prepared for the Rock River basin to pilot this approach.

The river basin assessment as described in the framework is intended to be a snapshot view of the area's water resources which compiles a variety of information and assessments. It is not a list of public policy recommendations or an implementation document. Rather, it is intended that the river basin assessment will provide the basic information regarding water resources, such as which waters are impaired as well as causes and sources of impairments, that can be used by local planning groups in the development of detailed watershed implementation plans.

The Rock River Basin Assessment which follows is the first "pilot" attempt at such an assessment.

## LOCATION AND SETTING

The Rock River is part of the upper Mississippi River basin (07090000) with a total watershed size of approximately 10,900 square miles. A little more than half (51.5 percent) of the watershed is located in Wisconsin with the remaining part located in northwestern Illinois. Major tributaries in the Rock River basin include the Beaverdam River, the Yahara River, the Bark River (all entirely within Wisconsin), the Sugar River, the Pecatonica River (both in Wisconsin and Illinois), the Kishwaukee River and the Green River (both entirely in Illinois). The basin contains 7 USGS 8 digit hydrologic units as shown in Table 1.

**Table 1. USGS eight digit hydrologic units in the Rock River Basin.**

Catalogue Unit	Name	Total	Square Miles		Percent	
			Illinois	Wisconsin	Illinois	Wisconsin
07090001	Upper Rock	2920	9	2911	0.3	99.7
07090002	Crawfish	788	0	788	0.0	100.0
07090003	Pecatonica	1870	728	1142	38.9	61.1
07090004	Sugar	748	68	680	9.1	90.9
07090005	Lower Rock	2180	2139	41	98.1	1.9
07090006	Kishwaukee	1260	1218	42	96.7	3.3
07090007	Green	1120	1120	0	100.0	0.0
Totals:		10886	5282	5604	48.5	51.5

The Rock River basin contains 253 USGS 12 digit hydrologic units as shown in Appendix YY. The relationship between river basins, watersheds and subwatershed can be shown by the USGS hydrologic units. As an example, the Upper Piscasaw Creek subwatershed has a twelve (12) digit hydrologic unit code of 070900060210.

- **0709**00060210 - The first four digits identify it as a part of the Rock River basin.
- 0709**0006**0210 - The next four digits identify it as a part of the Kishwaukee River watershed.
- 07090006**02**10 - The next two digits identify it as a part of the Piscasaw Creek subwatershed.
- 0709000602**10** - The last two digits identify it as part of the Upper Piscasaw Creek subwatershed.

Surface features in the basin are described by the Upper Mississippi River Basin Commission (1981) as follows: *“Glacial drift covers the northern and eastern parts of the [watershed] and is characterized by a large number of lakes, a high percentage of wetlands, and gently rolling topography. A driftless area of deeply incised stream valleys, and no natural lakes covers the northwestern portion of the basin. The Illinois portion is dominated by a broad alluvial plain except near the Mississippi River where the terrain is rugged and the streambanks have steep slopes.”*



The Illinois portion of the Rock River basin is approximately 5,280 square miles and contains all or portions of 15 Illinois counties as shown in Figure 1 and Table 2. Boone, Ogle and Winnebago counties lie entirely within the Rock River basin, while DeKalb, Henry, Lee, McHenry, Stephenson and Whiteside counties have the majority of their land area within the basin. Major Illinois cities (populations over 10,000) located in the basin include Rockford, Loves Park, Machesney Park, Freeport, Belvidere, DeKalb, Sycamore, Dixon, Sterling, Rock Island, Moline and East Moline.

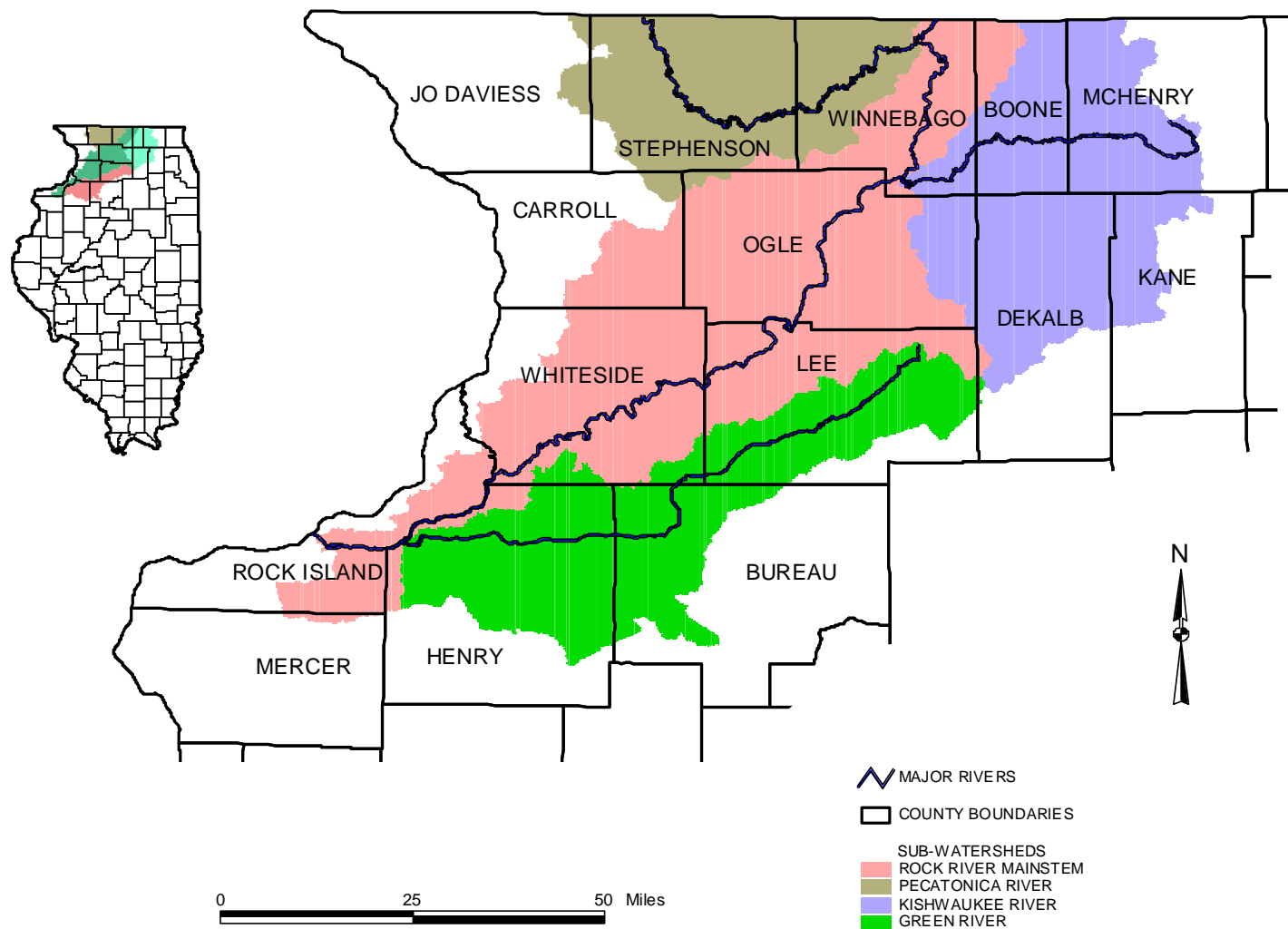
Climate in the Illinois portion of the Rock River basin is generally continental in nature, characterized by changeable weather and wide ranging temperature extremes. Summer maximum temperatures are generally in the 70s and 80s with lows in the 50s and 60s. Daily high temperatures in winter are usually in the 20s and 30s with lows in the single digits or teens. Annual precipitation is about 36 inches with average snowfall about 31 inches. The wettest months are March through September. Rainfall during these months is often associated with thunderstorms. Detailed climate information is available from the Midwest Regional Climate Center at:

<http://sisyphus.sws.uiuc.edu/index.html>

**Table 2. Illinois counties in the Rock River Basin.**

County Name	Square Miles		Percent of County in Rock River Basin
	Total	Rock River Basin	
Boone	279.9	279.9	100.0
Bureau	866.0	277.5	32.0
Carroll	462.7	151.4	32.7
De Kalb	629.2	403.6	64.1
Henry	817.2	518.5	63.4
Jo Daviess	613.6	25.2	4.1
Kane	519.7	126.1	24.3
Lee	722.2	616.6	85.4
Mc Henry	606.1	313.9	51.8
Mercer	562.1	5.6	1.0
Ogle	757.1	765.2	100.0
Rock Island	447.3	193.4	43.2
Stephenson	560.1	510.1	91.1
Whiteside	691.5	569.0	82.3
Winnebago	515.2	515.2	100.0
Totals	9,049.9	5,271.1	58.2

**Figure 1. Location of the Rock River Basin in Illinois.**



## LAND USE: CURRENT AND TRENDS

Land use refers to the human activities on the land relating mostly to a region's economic activities and is not always directly observable. Land cover on the other hand is the vegetation and manmade features covering the land surface which are directly observable and from which land use can be inferred. Land cover is most often observed and categorized from aerial photographs or satellite images.

The Upper Mississippi River Basin Commission's Water Resource Plan for the Rock River Basin (1981) reported land use in the entire Rock River basin as 69 percent cropland, 9 percent pasture, 7 percent forest, 7 percent other and 8 percent non-inventoried. The Commission noted that livestock pasturing predominates in the northern and eastern portions of the basin while forest most commonly occurs in the dissected terrain close to the Mississippi River and in the rugged stream valleys of the driftless area. The plan further delineated land use/land cover in the basin as shown in Table 3. A slightly higher percentage of the Illinois portion of the basin is in urban land use while the Wisconsin portion of the basin has a higher proportion of water, probably because of the many lakes in this area. In addition, a total of 23,373 acres of federal lands were noted in the basin: 3,010 acres in Illinois and 20,363 acres in Wisconsin.

**Table 3. Land Cover in the Rock River Basin, by state.**

	% Urban	% Rural	% Water
Basin Total	6.1	92.7	1.2
Illinois	6.3	93.0	0.7
Wisconsin	5.9	92.5	1.6

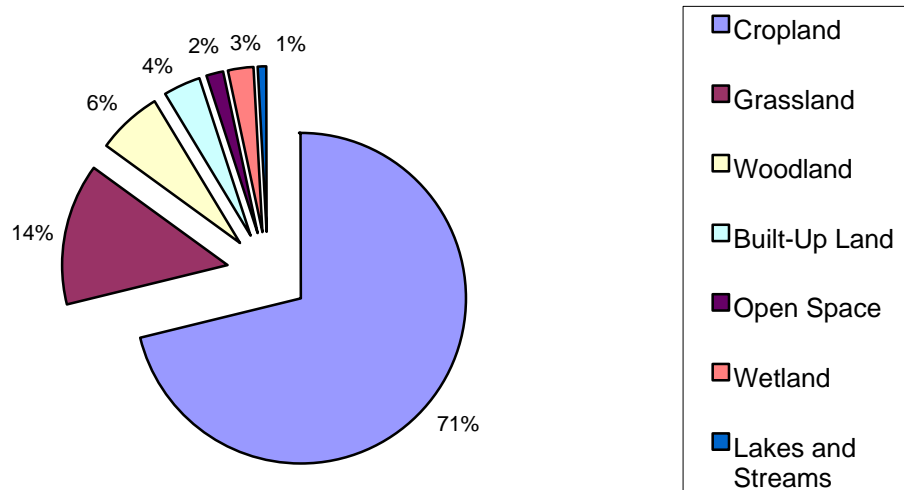
From Upper Mississippi River Basin Commission, 1981.

In 1996 the Illinois Department of Natural Resources published an inventory of Illinois land cover using satellite imagery acquired during 1991-1995. In 2002 the USDA National Agriculture Statistics Service, Illinois Department of Natural Resources, and Illinois Department of Agriculture published an updated inventory of Illinois land cover using satellite imagery from 1999 and 2000. These two inventories were used as the sources of land cover data for the Illinois portion of the Rock River basin shown in this report.

Land cover from 1999-2000 data for the Illinois portion of the Rock River basin is shown in Figure 2. Cropland is the largest category of land use comprising 71 percent of the land area with rural grassland accounting for another 14 percent of the basin. Six percent of the basin is in forest cover, while another 2.5 percent remains in wetlands. Urban built-up land accounts for 3.6 percent and urban open space makes up 1.5 percent of the area. Open water in the form of lakes and streams is only 1 percent of the basin.

Table 4 shows short term trends in land cover in the Illinois portion of the Rock River basin by comparing land cover data from the two Illinois land cover inventories described above.

**Figure 2. Land cover percentages in the Illinois portion of the Rock River Basin.**



**Table 4. Land cover in the Illinois portion of the Rock River Basin, 1995 and 2000.**

	Land Cover 1991-1995 <sup>1</sup>		Land Cover 1999-2000 <sup>2</sup>		% Change in	
	Acres	% of Basin	Acres	% of Basin	Acres	Basin
<b>Agricultural Land</b>	2,960,661	87.6	2,873,105	85.0	- 3.0	- 2.6
<b>Cropland</b>	2,159,082	63.9	2,398,696	71.0	+ 11.1	+ 7.1
<b>Grassland</b>	801,579	23.7	474,409	14.0	- 40.8	- 9.7
<b>Woodland</b>	175,073	5.2	216,734	6.4	+ 23.8	+ 1.2
<b>Urban Land</b>	148,278	4.4	172,372	5.1	+ 16.2	+ 0.7
<b>Built-Up Land</b>	77,941	2.3	122,987	3.6	+ 57.8	+ 1.3
<b>Open Space</b>	70,336	2.1	49,385	1.5	- 29.8	- 0.6
<b>Wetland</b>	65,598	2.0	85,006	2.5	+ 29.6	+ 0.5
<b>Forested</b>	33,233	1.0	68,165	2.0	+ 105.1	+ 1.0
<b>Non-forested</b>	32,365	1.0	16,841	0.5	-48.0	- 0.5
<b>Lakes and Streams</b>	27,252	0.8	30,096	0.9	+ 10.4	+ 0.1
<b>Barren/Exposed</b>	2,472	0.1	1,879	0.1	- 24.0	0.0
<b>Totals*</b>	3,379,334	100.1	3,379,221	100.0		

\*Differences in totals result from rounding errors or differences in the two land cover databases.

1. Illinois Department of Natural Resources, Illinois Natural History Survey, Illinois State Geological Survey, Land Cover of Illinois 1991-1995, Critical Trends Assessment Program, 1996.

2. "USDA National Agriculture Statistics Service, Illinois Department of Natural Resources, and Illinois Department of Agriculture. 2002. Land Cover of Illinois 1999-2000. Springfield, IL."

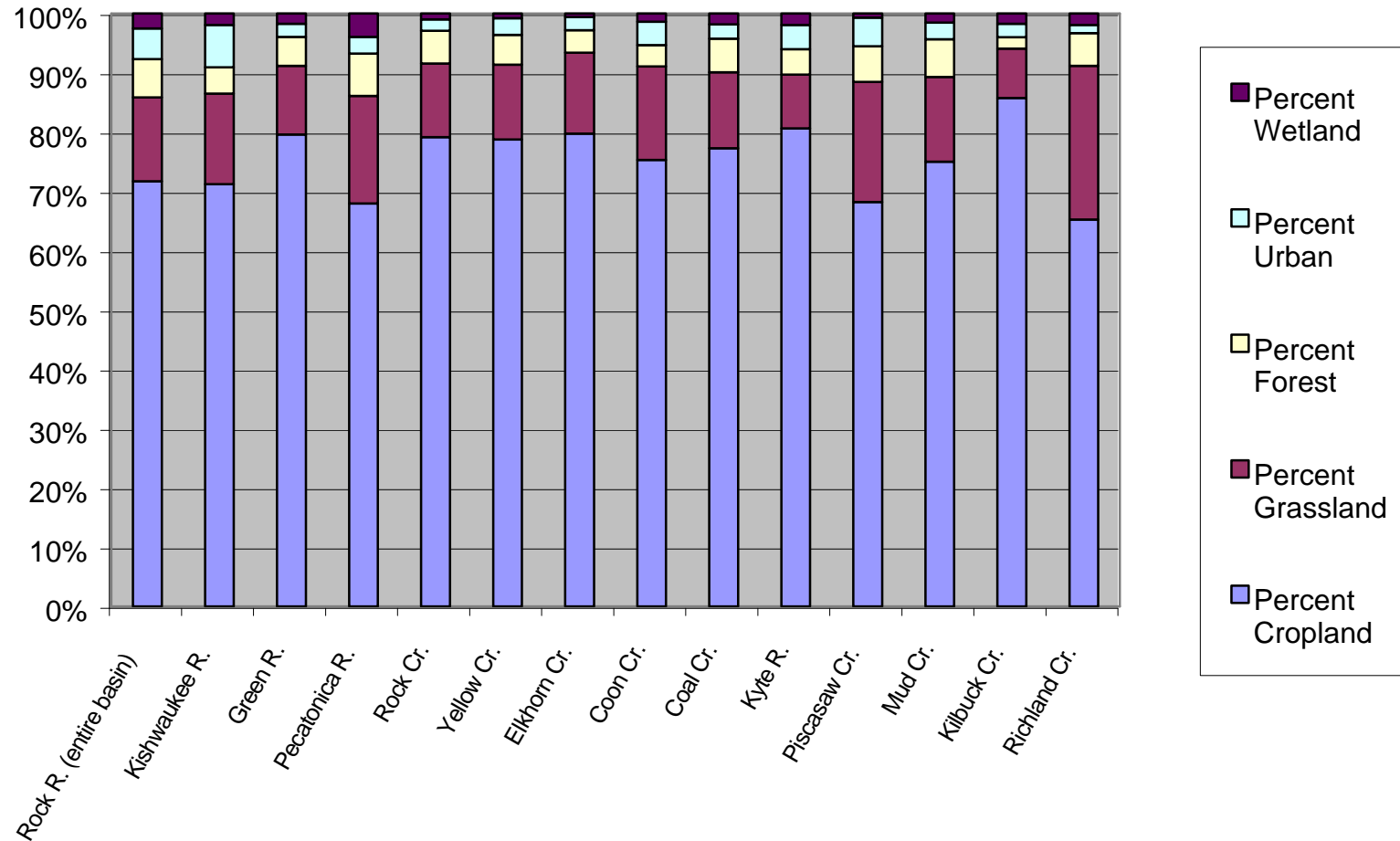
This data indicates several significant changes may have occurred in the basin in recent years. The table shows that the amount of cropland acres in the basin increased by 11 percent while the amount of rural grassland acres decreased by more than 40 percent. Another interesting change is a doubling of forested wetlands while at the same time non-forested wetlands declined by almost half. The amount of woodland also increased by almost a quarter. Urban built-up land appears to have increased by more than half, whereas the amount of urban open space has declined by almost 30 percent. While this data provides evidence of potential changes in land cover and land use in the Rock River basin, it is possible that some of the apparent change is attributable to differences in methodologies, categorization and interpretation of satellite imagery.

Land cover across watersheds in the Rock River basin is fairly consistent as shown in Figure 3. Of these watersheds the Kyte River has the highest percentage of cropland (79 percent) while subwatershed Richland Creek has the lowest (65 percent). The Pecatonica River watershed and Mud Creek subwatershed have the largest percentage of forest cover (7 percent) while Kilbuck Creek subwatershed has the least (3 percent). The greatest amount of urban land occurs in the Kishwaukee River watershed (7 percent) and the lowest percentage of urban land is found in Richland Creek subwatershed.

Appendix A shows a comparison of land cover percentages for 72 subwatersheds in the Rock River basin. Land cover proportions vary to a much greater degree when looking at smaller subwatersheds. For example, cropland ranges from 43 percent of the Raccoon Creek subwatershed to 95 percent of the South Beach Creek subwatershed. Forest covers less than 1 percent of the South Beach Creek subwatershed but covers 23 percent of the Waddams Creek subwatershed. Urban built-up land is only 0.3 percent of the South Beach, Pink and East Branch Richland creeks' subwatersheds, whereas the Kent Creek subwatershed is more than 15 percent urban.

The current land cover summaries indicate that land cover has changed drastically from presettlement conditions. Illinois Natural Resources, Critical Trends Assessment Program River Basin Area Assessments (1998<sup>1</sup>, 1998<sup>2</sup>, 1998<sup>3</sup>, 2002) calculated presettlement (1820-1830) land cover in the Illinois portion of the Rock River basin as shown in Table 5. Forested land has declined from 40 percent in 1820/1830 to less than 9 percent of the basin today. While prairie covered 60 percent of the basin in presettlement times only 14 percent of the basin today is in rural grassland. The same sources indicated that wetlands in the basin have also declined to a fraction of their former extent (Figure 4). These percentages demonstrate a general reduction in the amount of natural habitats in the basin. This reduction in the area of natural habitats is compounded by the reduction of diversity in today's forests, grasslands and wetlands compared to those original land covers.

**Figure 3. Comparison of land cover in the watersheds and subwatersheds of the Rock River Basin (Illinois portion)**

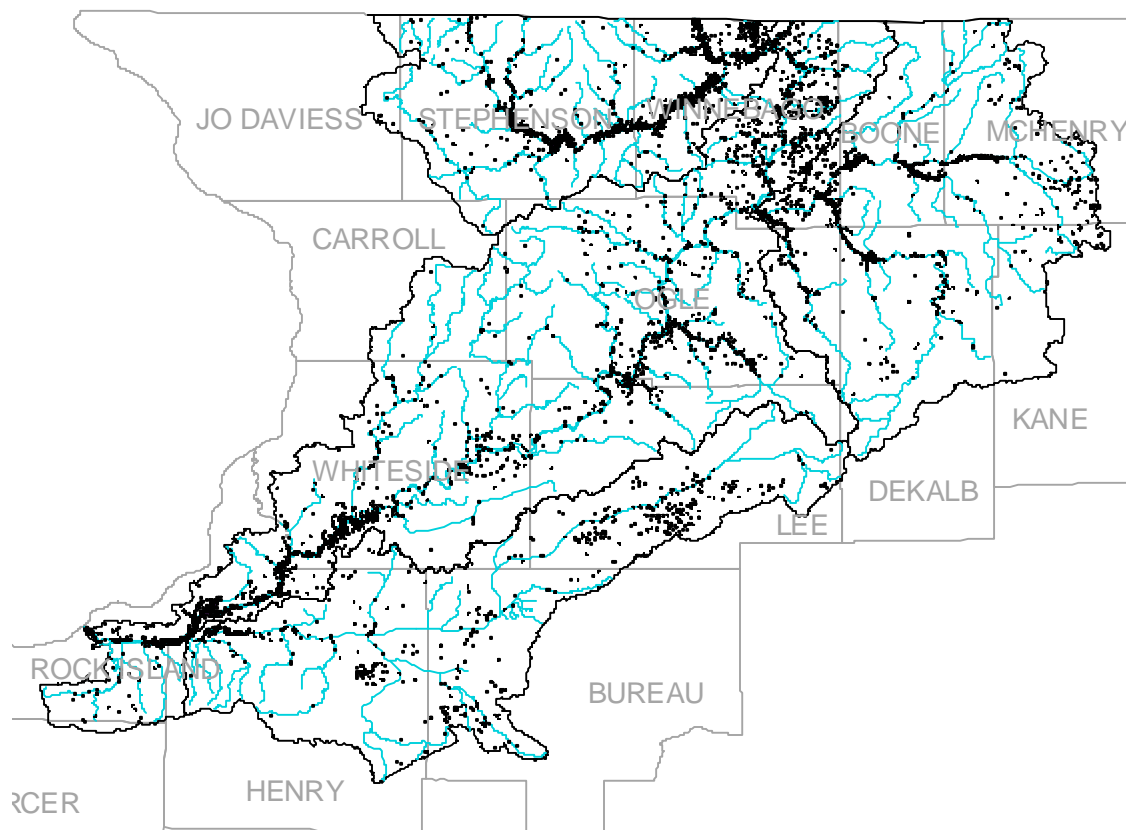


**Table 5. Presettlement land cover in the Illinois portion of the Rock River Basin.**

Watershed	Forest Cover		Prairie Cover	
	Acres	Percent	Acres	Percent
Sugar-Pecatonica	184,473	36	325,202	64
Kishwaukee	575,188	74	204,543	26
Upper Rock River	218,522	41	312,439	59
Lower Rock River*	411,279	25	1,210,792	75
Total:	1,389,462	40	2,052,976	60

\* Lower Rock River includes the information for the Green River Watershed  
 From Illinois Department of Natural Resources, 1998<sup>1</sup>, 1998<sup>2</sup>, 1998<sup>3</sup>, 2002

**Figure 4. Map of Wetland Areas in the Rock River Basin**



## NATURAL RESOURCES

### Soils

The Rock River basin generally contains very productive soils as evidenced by the large proportion of the basin which is used for agricultural crop production. The USDA Natural Resources Conservation Service uses nine criteria to determine if a soil qualifies as Prime Farmland. Appendix ZZ contains the criteria and a list of Prime Farmland soils by county for the Rock River basin. Table 6 shows the acres of Prime Farmland located in the counties that contain a part of, or are completely within the Rock River basin. The soils in the basin fall mostly into two soil orders: Alfisols and Mollisols. In general, the Mollisols developed under natural prairie or marsh vegetation, are rich in organic matter with a darker soil color and tend to be more fertile. The Alfisols developed under forest vegetation, are not as rich in organic matter and have thinner upper soil horizons. There are also scattered occurrences of Entisols and Inceptisols on floodplains and sandy outwash areas and along steeper, eroded uplands. Entisols and Inceptisols are soils with minimal soil horizon development and occupy a small area in the watershed.

The parent materials for the soils in the Rock River basin include loess, till, outwash, bedrock, alluvium and sand dunes, with loess being the predominant material. These materials differ significantly in their permeability, erodibility and physical and chemical characteristics. By affecting water table elevation, erosion, sedimentation and water chemistry, these differences create localized habitats and affect the distribution of land cover in the basin.

A total of 33 soil association types are found in the Rock River basin as shown in Appendix B. The five most common associations are Tama-Muscatine-Sable, Drummer-Plano-Elburn, Rozetta-Fayette-Hickory, Saybrook-Drummer-Parr, and Jasper-La Hogue-Selma. These five soil associations' account for 53 percent of all the soils in the basin. The more productive soils tend to be Mollisols having developed in areas with thicker loess and are high in organic content. The upland areas devoted to row crop agriculture are dominated by productive Mollisols such as Tama, Sable, Ipava, Drummer, and others. Soil Types and Soil Hydrologic Groups in the basin are depicted in Appendices C and D.

The problem of soil erosion varies across the basin according to slope. Flat upland areas and floodplains generally have a low potential for soil erosion. These areas, however, often have poor drainage, fine textured underlying sediments, high water tables and wet soils which results in severe stream and channel erosion and sedimentation in streams and lakes. On the other hand, areas of steeper slopes adjacent to floodplains are susceptible to severe soil erosion through sheetwash and gullying. The extensive distribution and thickness of loess in the basin also increases the potential for soil erosion. The fine consistency and low shear resistance of loess makes the material particularly susceptible to wind and water erosion. Piping can also occur in loess creating linear underground channels that collapse to form surface



drainage channels. The increased water and sediment discharge resulting from erosion on uplands can initiate or aggravate streambank erosion and stream sedimentation harmful to aquatic communities.

**Table 6. Prime Farmland acreage in the Counties that contain a portion of, or are completely within the Rock River Basin.**

<b>County</b>	<b>Acres</b>	<b>Percent</b>
Boone/Winnebago	343,273	67.0
Bureau	423,085	75.7
Carroll	107,170	35.9
DeKalb	390,458	96.2
Henry	333,149	63.1
JoDaviess	98,334	24.8
Kane	280,294	83.5
Lee	394,741	84.6
McHenry	300,928	76.9
Ogle	347,455	71.1
Rock Island	157,409	54.5
Stephenson	262,962	72.8
Whiteside	296,419	66.4
Winnebago	Information provided in conjunction with Boone County	

## **Geology**

### **Surficial Geology and Glacial History**

The sediments that lie under most of the soils in the Rock River basin were deposited by a succession and recession, of continental glaciers that advanced across the area during the Pleistocene Epoch, known as the “Great Ice Age.” These sediments fall into three major categories: till, outwash and lacustrine (lake) deposits, and to a lesser extent peat and alluvium (Killey, 1998). Overlying most of these deposits is a wind blown silt known as loess.

Till is a mixture of various sizes of rock, sand, gravel and clay. Most till is a combination of clay, silt and sand that serves as a matrix for the larger pebbles, rocks and boulders. In contrast, outwash is predominantly sand and gravel that have been washed out in streams in front of the glaciers (Appendix E). Deposits of outwash are potentially a good resource for construction sand and gravel, and when thick enough, can be excellent aquifers.

The loess in the Rock River basin is a major parent material for soils. It has good drainage yet holds moisture, and has no pebbles or cobbles to interfere with plowing. The loess was primarily derived from sediments that were deposited along the major meltwater valleys, such as the Illinois River Valley, by meltwater flowing from glaciers to the northeast. Prevailing westerly winds picked up the finer sediments and blew them across the landscape. The loess is thickest in the west and thins rapidly eastward.

The Rock River basin has been affected by several periods of glacial activity including the Illinois Episode, occurring between 125,000 and 300,000 years ago, and the Wisconsin Episode, occurring between 10,000 and 75,000 years ago (Appendix F). Prior to the Illinois Episode, meltwaters from early glaciers left behind sand layers in the lowest parts of the pre-glacial bedrock valleys.

During the Illinois Episode, glaciers advancing from the northeast extended into and in some cases swept across the entire Rock River basin. These glaciers left behind sheets of till that are today classified as the Glasford and Winnebago Formations (Willman and Frye 1970; Berg and others 1984). As the ice melted, rock debris that had been incorporated into the ice melted out and was carried into pre-existing valleys and low areas on the bedrock surface. Much of this debris remains as sand and gravel outwash deposits in the valleys.

Glaciation during the Wisconsin Episode deposited till over a wide area in the Rock River basin. This till is generally sandy and is classified as the Tiskilwa Formation. Outwash deposited by meltwater along the Rock River and its tributaries is known as the Henry Formation. Temporary lakes filled with glacial melt water along the front of the Wisconsin Episode ice were the site of deposition for fine-grained silt and clay, mapped today as the Equality Formation (Appendix G).

During and after both the Wisconsin and Illinois Episodes of glaciation, loess deposition was common. Blankets of loess between five and ten feet thick cover much of the Rock River basin. More modern deposits of silt, clay, sand and gravel deposited in floodplains and river channels are mapped as the Cahokia Alluvium.

### **Bedrock Geology and Topography**

As shown in Appendix H, the bedrock underlying the Rock River basin consists mainly of sedimentary rocks laid down during the Cambrian, Ordovician and Silurian Periods. The Cambrian strata are mostly sandstone, with some dolomite, siltstone and shale. The Ordovician strata consists of the Prairie du Chien Group, which is dominantly dolomite and sandstone; the Ancell Group, consisting primarily of sandstone; the Galena-Platteville Group, which is essentially all dolomite; and the Maquoketa Group, which is primarily shale. The Silurian Period bedrock is predominately dolomite.

Most of the bedrock directly underlying the glacial sediments in the Rock River basin is of Ordovician age, as shown in Appendix H. These generally flat-lying strata are broken by the Plum River and Sandwich Fault Zones, which bring much older rocks to the bedrock surface. The oldest bedrock surfaces are of Cambrian age and are mostly restricted to the southern edge of the Rock River basin, with smaller surfaces in the deepest part of the Rock Bedrock Valley. Silurian dolomite is present at the western edge of the basin.

The top of the bedrock surface in the Rock River basin is a complex topographic surface containing buried valleys, lowlands and uplands. Buried bedrock valleys commonly contain coarse-grained sediments that form important, productive aquifers. Two large bedrock valleys, the Rock and the Pecatonica, were eroded into the bedrock surface during the early and middle Pleistocene by periods of continental glaciation. (Horberg 1950)

In Ogle County, where dolomite of the Galena-Platteville Group is at or close to the land surface, karst (Appendix I) has formed (Weibel and Panno 1997). Karst consists of distinctive landforms and drainage patterns caused by the slow dissolution of the bedrock. Features that typify karst include sinkholes, caves and numerous springs. Although caves are rare in this area, smaller interconnected conduits are commonly present that allow the rapid movement of rainwater and melted snow into and through the bedrock. This rapid recharge can carry materials (and pollutants) from the land surface into the bedrock. While the fractured and highly permeable rocks present in karst areas may constitute locally important aquifers, they are also susceptible to surface-derived contamination.

## Major Aquifer Systems and Potential for Aquifer Recharge

O'Hearn and Schock (1984), defined a major aquifer as having a potential yield of 100,000 gallons per day per square mile and having an area of at least 50 miles. The Rock River basin includes two such major aquifer systems. Figure 5 illustrates the major sand and gravel aquifers in the basin, whereas, the shallow and deep bedrock aquifers have been combined into one major bedrock aquifer system (Figure 6). The majority of the Rock River basin is underlain by major aquifer systems. The groundwater discharged into the Rock River from both the sand and gravel and shallow bedrock aquifers is a key component of stream base flow. The two-year low flow stream data for the Rock River yields 500 to 2,000 cubic feet per second (cfs).

Water that moves into the saturated zone and flows downward, away from the water table is recharge. Generally, only a portion of recharge will reach an aquifer. The overall recharge rate is affected by several factors, including intensity and amount of precipitation, surface evaporation, vegetative cover, plant water demand, land use, soil moisture content, depth and shape of the water table, distance and direction to a stream or river, and hydraulic conductivity of soil and geologic materials (Walton, 1965).

Figure 7 illustrates the potential for aquifer recharge, defined as the probability of precipitation reaching the uppermost aquifer. The map is based on a simplified function of depth to the aquifer, occurrence of major aquifers, and the potential infiltration rate of the soil. This simplification assumes that recharge rates are primarily a function of leakage from an overlying aquitard (fine grained non-aquifer materials).

The aquifers within the Rock River basin have a very high potential for aquifer recharge. Moreover, recharge may also be occurring from outside of the watershed boundary. Additionally, pumping stresses from potable water supply wells located adjacent to watershed boundaries may change the natural groundwater flow directions. Therefore, aquifer boundaries may not be consistent with surface watershed boundaries.

Additional and more detailed information is available via Illinois EPA's Environmental Facts Online (ENFO): <http://www.epa.state.il.us/enfo/>.

Figure 5. Major Sand and Gravel Aquifers in the Rock River Basin (Illinois Portion)

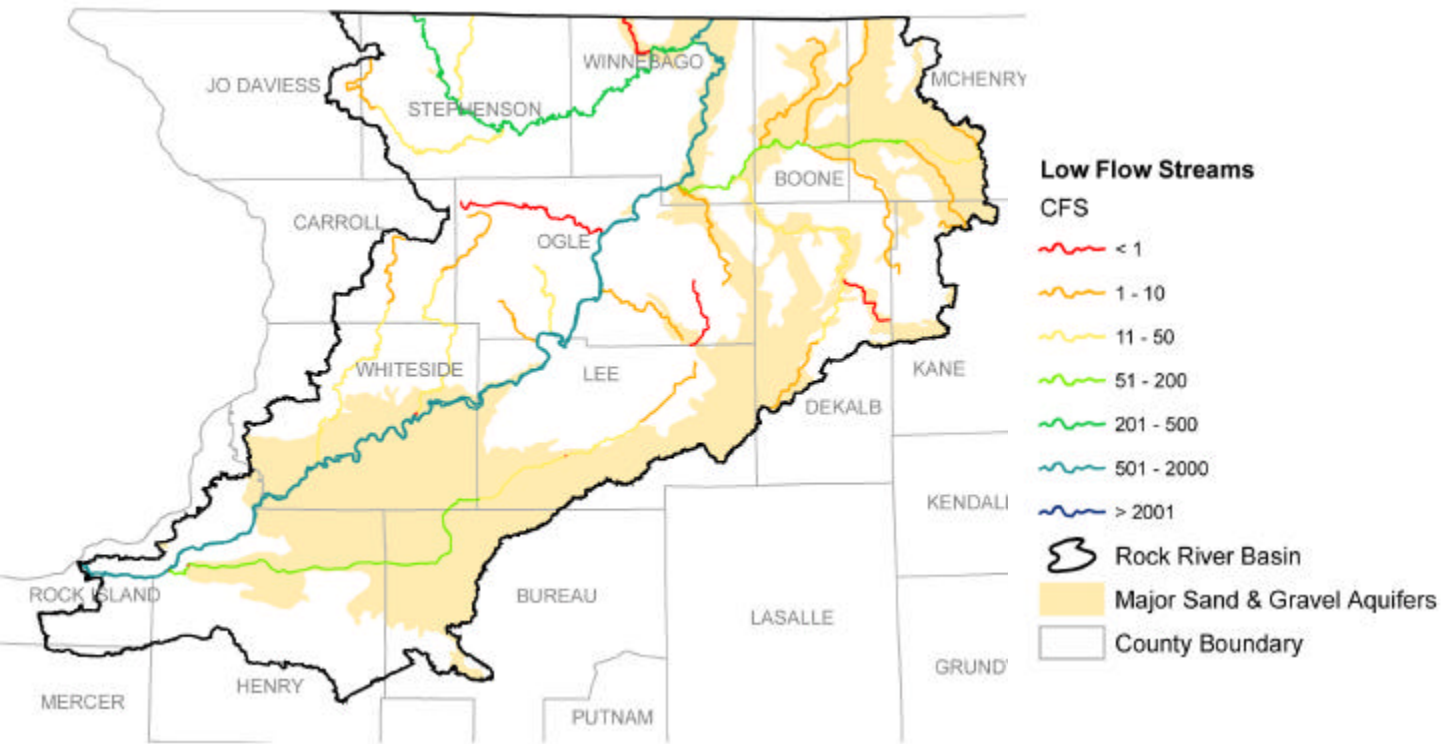
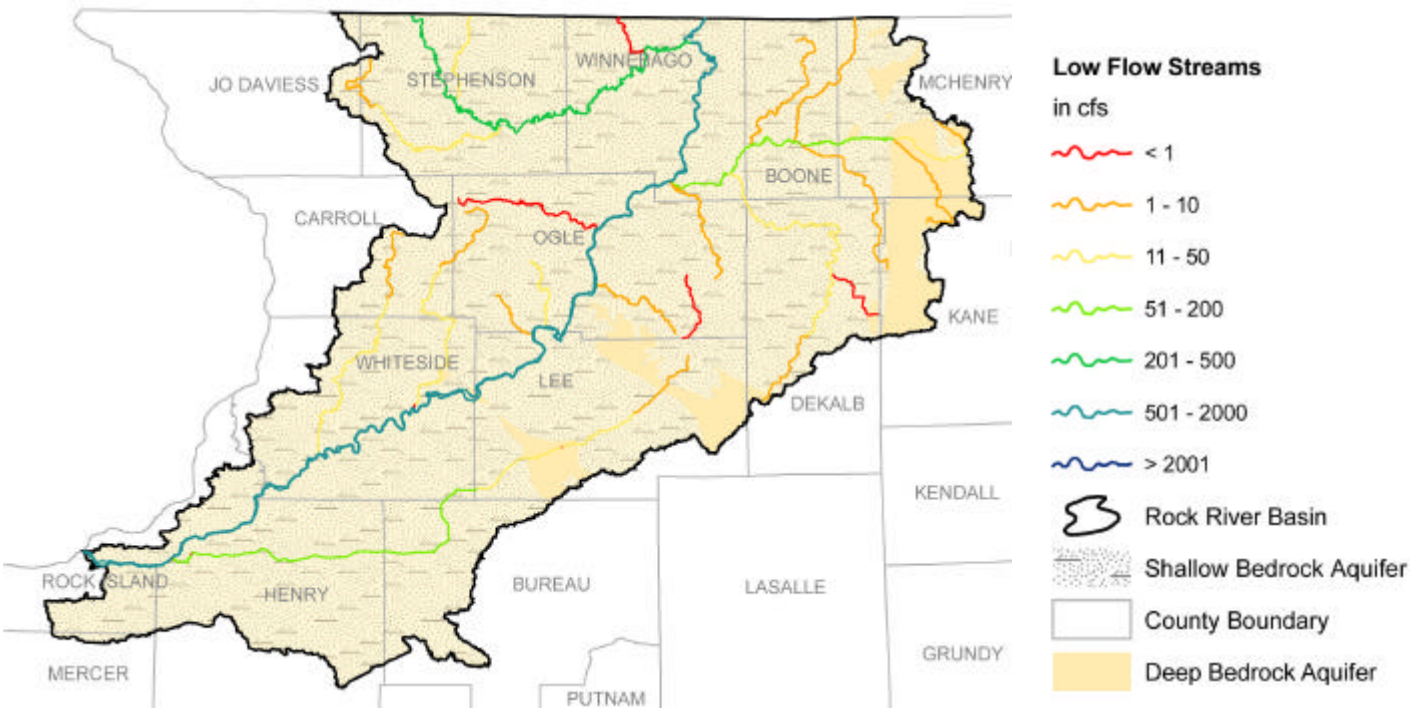
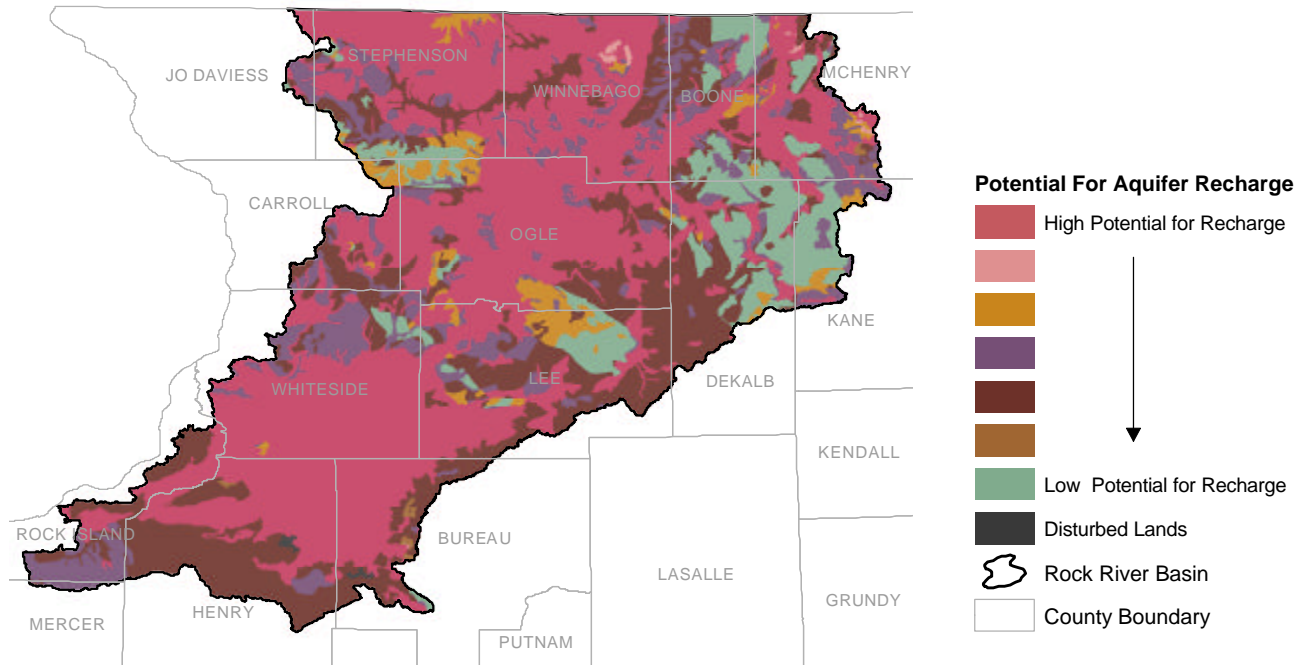


Figure 6. Major Shallow and Deep Bedrock Aquifers in the Rock River Basin



**Figure 7. Aquifer Recharge Potential in the Rock River Basin (Illinois Portion)**



## Natural Areas

Schwegman (1973) divided Illinois into 14 Natural Divisions based on topography, glacial history, bedrock, soils and distribution of plants and animals. Most of the divisions are further divided into sections. Parts of nine Natural Divisions and 13 sections occur in the Rock River basin (Table 7). Three Natural Divisions (the Rock River Hill Country, The Grand Prairie and the Northeastern Morainal) comprise more than 88 percent of the area in the basin.

**Table 7. Natural Divisions in the Rock River Basin.**

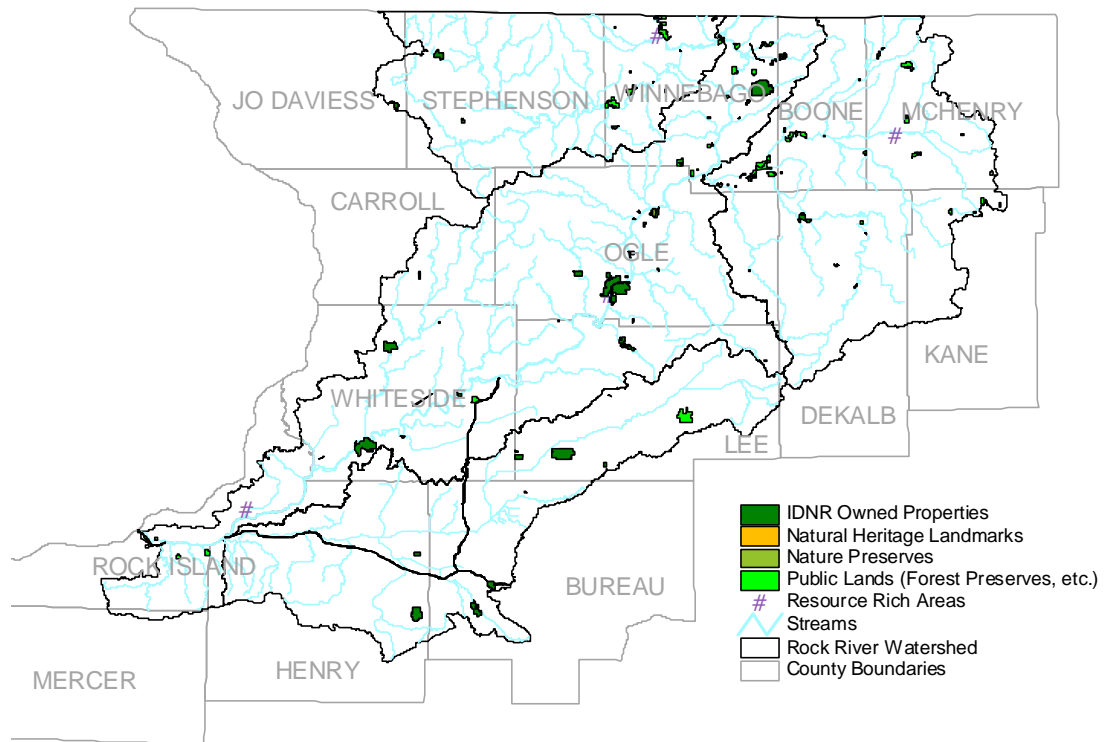
<b>Name of Division and Section</b>	<b>Acres</b>	<b>Percent of basin</b>
Rock River Hill Country Division/Freeport Section	1,141,137	33.7
Grand Prairie Division/Green River Lowland Section	533,653	15.8
Grand Prairie Division/Grand Prairie Section	474,788	14.0
Northeastern Morainal Division/Winnebago Drift Section	434,505	12.9
Northeastern Morainal Division/Morainal Section	280,607	8.3
Upper Miss. & Illinois R. Bottomlands Div/Miss. R. Section	136,438	4.0
Rock River Hill Country Division/Oregon Section	135,190	4.0
Grand Prairie Division/Western Section	122,095	3.6
Middle Mississippi Border Division/Glaciated Section	100,021	3.0
Western Forest-Prairie Division/Galesburg Section	15,963	0.5
Illinois R. & Miss. R. Sand Areas Division/Miss. R. Section	6,485	0.2
Wisconsin Driftless Division/Undifferentiated	249	0.0
Major Water Bodies/Mississippi River	125	0.0

Derived from Schwegman et al., 1973.

Figure 2 and Table 4 provide evidence that the Rock River basin has been highly modified by human activities. Natural communities are even rarer and more disturbed in the Rock basin than in the state as a whole. The once vast areas of prairie, forest, savannah and wetlands that existed in the region are now limited to small remnants with most of that in a highly disturbed condition. It is estimated that only about 412 acres of un-degraded, high quality natural habitat remains in this basin (Illinois Department of Natural Resources, 1998<sup>1</sup>, 1998<sup>2</sup>, 1998<sup>3</sup>, 2002).

State or local government has set only 0.8 percent of the Rock River basin aside as state parks, forest preserves or nature preserves. This includes over 18,500 acres of state land and over 6,800 acres of county owned parks (Appendix J). Approximately 111 Natural Areas and 42 Nature Preserves have been recognized in the basin totaling over 16,900 acres (Appendices K and L). Much of this land remains in private ownership and is at risk of development. Figure 8 provides a general location of State Parks, Forest Preserves, Nature Preserves and Natural Heritage areas.

**Figure 8. Nature Preserves, Public Lands and Natural Heritage Sites in the Rock River Basin.**



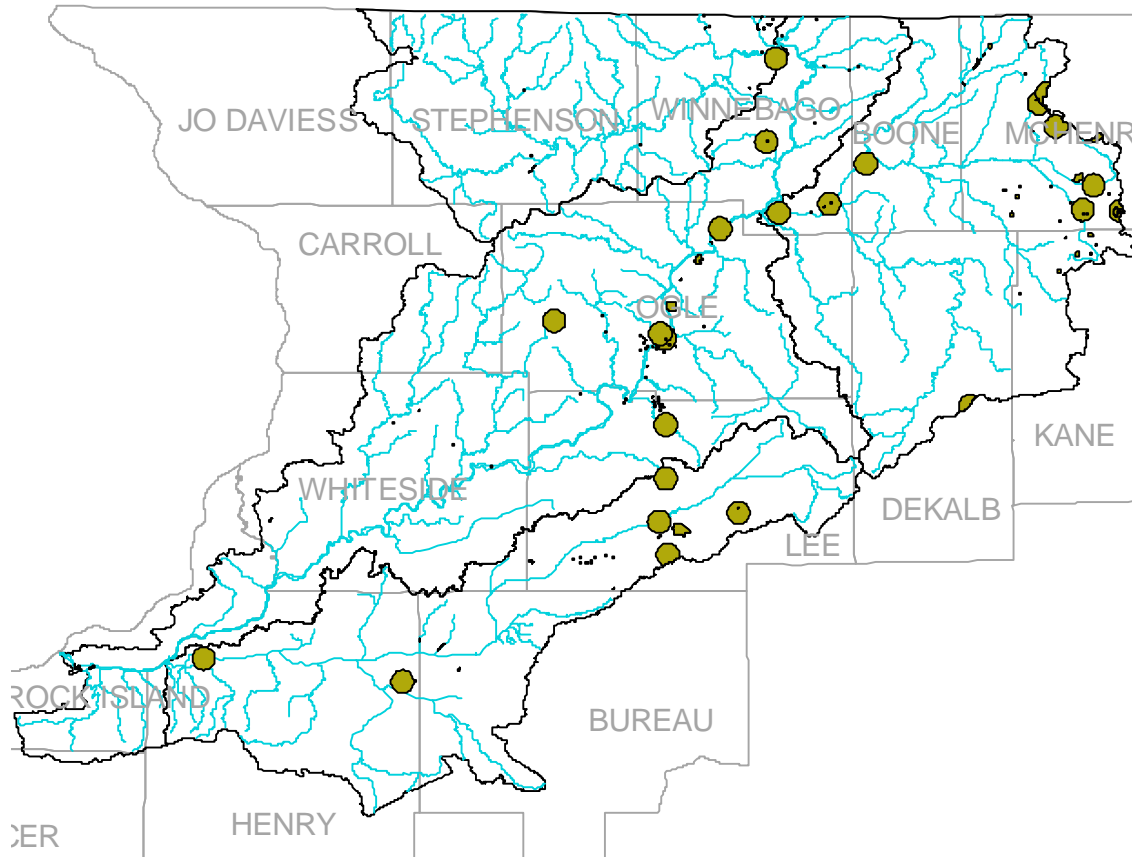


## Threatened and Endangered Species

The original pre-settlement land cover in the Rock River basin consisted of a mixture of prairie, savannah, forest and wetlands. These natural habitats supported hundreds of species of plants and animals. The conversion of natural habitats to agriculture, the draining of wetlands and the overall impact of human activities on the landscape has drastically reduced the abundance and diversity of wildlife in the area. While this is in no way unique to the Rock River basin, wildlife habitat have been disturbed on a larger scale here than in the state in general. Many species have been reduced to the point where their continued existence in the basin as well as in the state and nation as a whole is now in question.

Appendix M lists those species found in the region which are currently listed on either the Illinois or federal threatened and endangered species lists. This includes 83 plant species, 13 species of mussels, three insects, eight fish, two reptiles, 36 species of birds and two mammals. While most of these are on the Illinois list only, seven species are federally listed (four are federally endangered, and three are federally threatened). Figure 9 shows general locations of the Threatened and Endangered Species as documented by the Illinois Department of Natural Resources.

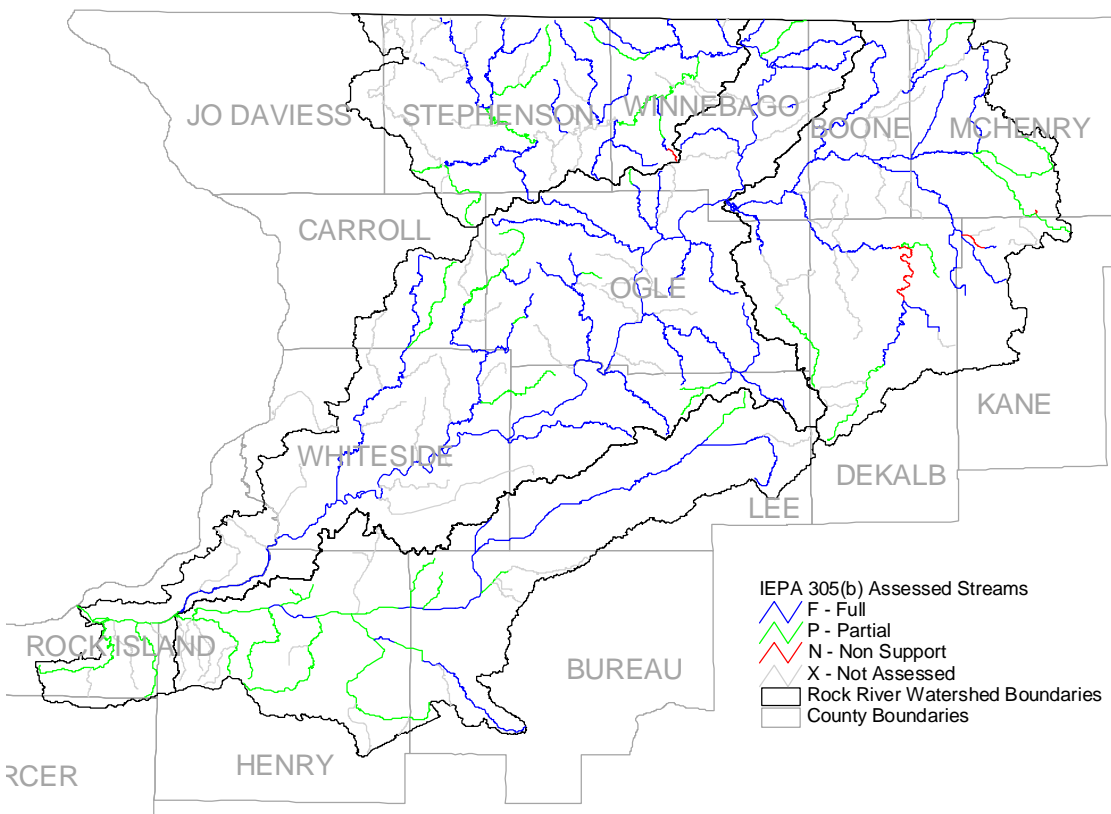
**Figure 9. General Location of the Threatened and Endangered Species in the Rock River Basin.**



## Surface Water Resources

According to the IDNR Critical Trends Assessment Report, there are almost 6,400 miles of streams and rivers in the Rock River basin. Figure 10 shows the general location of these streams and Illinois EPA's Aquatic Life Use designation for those streams that have been monitored. Aquatic Life Use assessments are based on biological information, supplemented by water chemistry data and physical-habitat information. The primary biological measures used are the Index of Biotic Integrity for fish (fish IBI; Karr et al. 1986; Smogor et al. 2004) and the Macroinvertebrate Biotic Index (MBI; IEPA 1994). Physical-habitat information used in assessments includes quantitative measures of stream-bottom composition and qualitative descriptors of channel and riparian conditions (Table 3-5, Illinois Water Quality Report – 2004). Water chemistry data used include measures of “conventional” parameters (i.e., dissolved oxygen, pH, temperature), priority pollutants, non-priority pollutants, and other pollutants (USEPA 2002; Table 3-6, Illinois Water Quality Report – 2004). For more detailed location and assessment information, use the interactive geographic information tool, “Illinois Water Quality Information” at <http://www.epa.state.il.us/website/wqinfo/>.

**Figure 10. Aquatic Life Use in Streams in the Rock River Basin.**



## Streamflow

The quantity and distribution of surface waters in a river basin are affected by many factors such as climate, geology, groundwater discharge, land and water use and hydrologic modifications. Human influences on land use and channel modifications can greatly alter the natural flow regime resulting in increased flooding, channel and bed erosion, sedimentation and degradation of instream habitat among other things. Gaging stations are established at selected locations to monitor streamflow and are useful to determine changes over time.

A total of 28 U.S. Geological Survey stream gages are located in the Illinois portion of the Rock River basin (Appendix N). Only 17 of these, however, are currently in operation. Table 8 shows the site number, location, long-term median flow and 7Q10 for these sites. The 7Q10 refers to the lowest consecutive 7-day stream flow that is likely to occur in a ten-year period. All 7Q10 values, except the station on the Illinois River at Marseilles, were taken from the ISWS map of the Rock River Region (9/02). The station on the Illinois River at Marseilles was taken from the ISWS map of the Northeastern Region (2/03). The 7Q10 maps indicate some of the stations on the map and have a corresponding 7Q10 value attached. For stations that were not identified on the map (denoted by asterisks [\*]), IEPA staff estimated the corresponding 7Q10 value.

**Table 8. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

Station Number	Station Location	Long Term Median Flow (CFS)	7Q10
<u>5435500</u>	PECATONICA RIVER AT FREEPORT, IL	825	208.00
<u>5437050</u>	PECATONICA RIVER NEAR SHIRLAND, IL	3,815	428.00 *
<u>5437500</u>	ROCK RIVER AT ROCKTON, IL	4,320	926.00 *
<u>5437610</u>	ROCK RIVER AT LATHAM PARK, IL	---	932.00 *
<u>5437641</u>	ROCK RIVER AT AUBURN ST AT ROCKFORD, IL	---	937.00 *
<u>5438500</u>	KISHWAUKEE RIVER AT BELVIDERE, IL	320	38.00
<u>5439000</u>	SOUTH BRANCH KISHWAUKEE RIVER AT DEKALB, IL	63.0	0.14
<u>5439500</u>	SOUTH BRANCH KISHWAUKEE RIVER NEAR FAIRDALE, IL	208	14.20
<u>5440000</u>	KISHWAUKEE RIVER NEAR PERRYVILLE, IL	662	72.00
<u>5440700</u>	ROCK RIVER AT BYRON, IL	7,655	1,132.00 *
<u>5443000</u>	ROCK RIVER ABOVE SINNISSIPPI DAM AT ROCK FALLS, IL	---	1,195.00 *
<u>5443500</u>	ROCK RIVER AT COMO, IL	5,130	1,202.00
<u>5444000</u>	ELKHORN CREEK NEAR PENROSE, IL	89.0	15.80
<u>5446500</u>	ROCK RIVER NEAR JOSLIN, IL	7,430	1,394.00
<u>5447500</u>	GREEN RIVER NEAR GENESEO, IL	680	46.10
<u>5448000</u>	MILL CREEK AT MILAN, IL	37.5	0.19
<u>5543500</u>	ILLINOIS RIVER AT MARSEILLES, IL	10,700	1,990.00

--- indicates site is relatively new and long term data are not available.

## Use Assessments, Causes and Sources

Water pollution control programs are designed to protect the “beneficial uses” of the water resources of the state. Each state has the responsibility to set water quality standards that protect these beneficial uses, also called “designated uses.” In Illinois, the Illinois Pollution Control Board designates the beneficial uses for each waterbody and adopts the water quality standards to protect those uses (Appendix O). For the purposes of meeting Section 305(b) of the Clean Water Act, Illinois EPA designates the following uses, aquatic life, primary contact (swimming), secondary contact (boating), fish consumption, and public water supply.

As part of the reporting requirements of Section 305(b) of the federal Clean Water Act, the Illinois EPA assesses the quality of the state’s surface water resources. This assessment involves determining the degree to which waterbodies are able to support their designated uses. For aquatic life in streams, the assessment process usually relies primarily on samples of the fish and macroinvertebrate communities. For most other assessments samples of water chemistry are compared to the water quality standards intended to protect particular uses. The full assessment process and latest assessment results are reported in the Illinois EPA’s *Illinois Water Quality Report, 2004*.

The National Hydrography Dataset (NHD, 1-100,000 scale) shows a total of almost 4,900 miles of streams and almost 5,000 acres of lakes and ponds in the Illinois portion of the Rock River basin. This includes all streams of all sizes from the Rock River mainstem to small first order tributaries. It also includes ponds as small as one acre in size.

In the Rock River basin 1,394 stream miles have been assessed for attainment of aquatic life use, 748 miles have been assessed for fish consumption and 229 miles have been assessed for primary contact (Table 9). These assessments indicate that aquatic life use is impaired in one third (32.8 percent) of the stream miles assessed, fish consumption use is impaired in a little more than half (53.5 percent) of the stream miles assessed and primary contact (swimming use) is impaired in almost two thirds (63.5 percent) of the stream miles assessed.

The most commonly identified causes of aquatic life use impairment in streams are nitrogen, habitat alteration, siltation, flow alteration, phosphorus and suspended solids (Figure 11). Unknown causes are also reported for almost half the impaired stream miles. The most common impairment to fish consumption is PCBs followed by mercury (Figure 12). Primary contact is typically impaired by fecal coliform bacteria. The sources of impairment most commonly identified are agriculture, hydrologic/habitat modification, contaminated sediments, municipal point sources, urban runoff and land development (Figure 13). Although not listed, air deposition is commonly thought to be a major source of mercury in Illinois surface waters. However, sources of impairment are frequently listed as unknown.

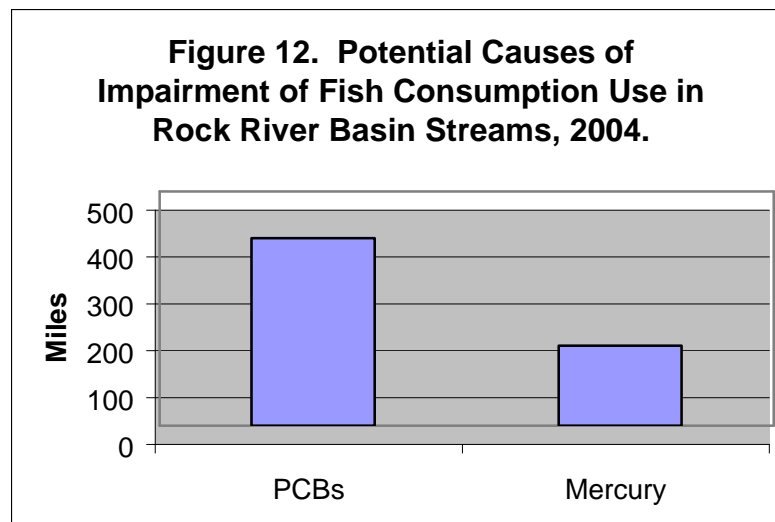
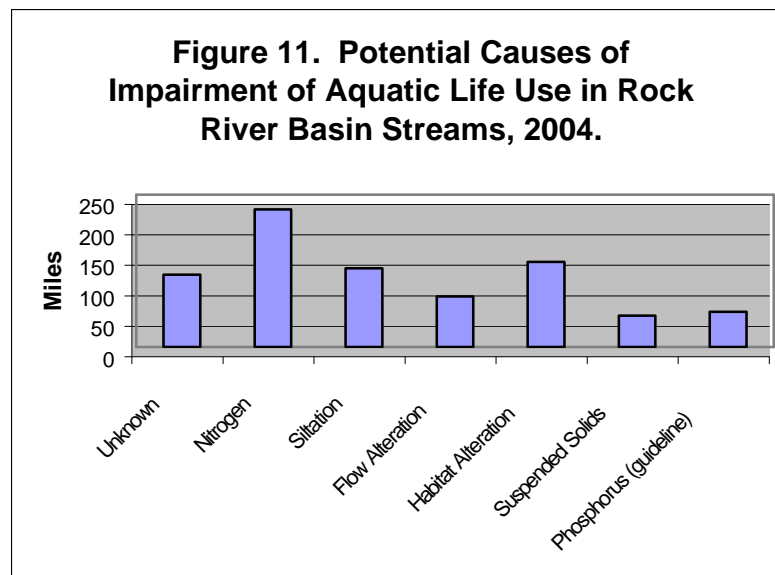
**Table 9. Rock River Basin Individual Use Support for Assessed Streams, 2004.**

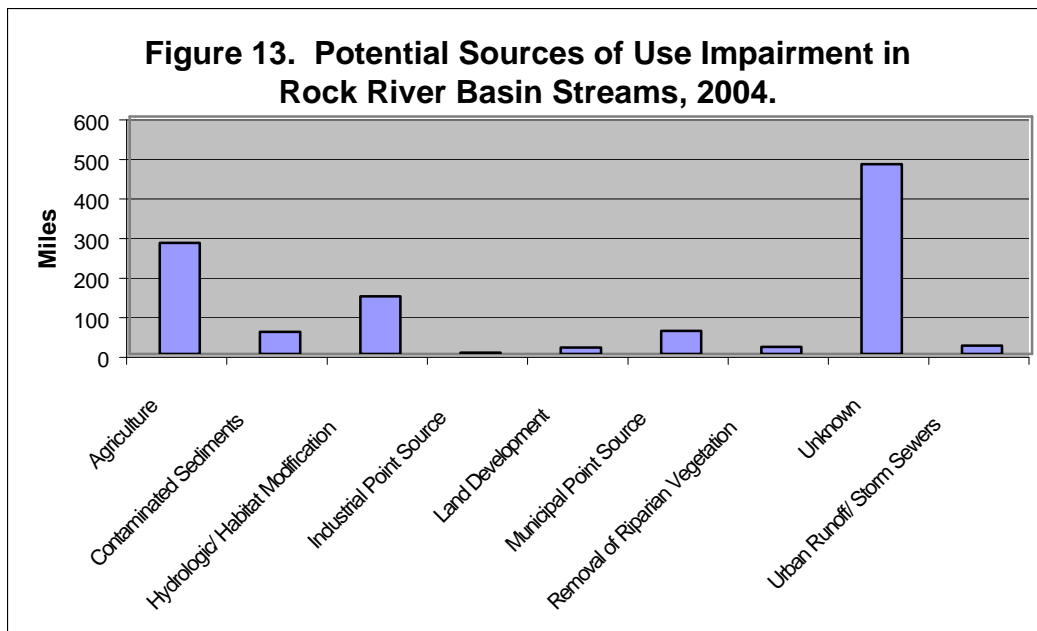
Use Support	Aquatic Life			Fish Consumption			Primary Contact			Public Water Supply*	
	Miles	% miles assessed	#	Miles	% miles assessed	#	Miles	% miles assessed	#	Miles	#
<b>Full</b>	938.0	67.3	89	347.6	46.5	35	83.8	36.5	5	0.0	0
<b>Partial</b>	434.3	31.2	49	400.3	53.5	32	77.5	33.8	8	0.0	0
<b>Nonsupport</b>	21.9	1.6	4	0.0	0.0	0	68.2	29.7	6	0.0	0
<b>Total Miles Assessed</b>	<b>1,394.2</b>		<b>142</b>	<b>748.0</b>		<b>67</b>	<b>229.5</b>		<b>19</b>	<b>0.0</b>	<b>0</b>

Source: Illinois Water Quality Report, 2004, Illinois Environmental Protection Agency.

\*No streams in the Rock basin are currently assessed for public water supply use.

# means the number of stream segments assessed in each category.





Seventeen lakes in the Rock River basin totaling 1,110 acres (of 5,000 lake acres present) have been assessed for aquatic life, primary contact (swimming use) and secondary contact (recreation) use attainment (Table 10). Four lakes with a total of about 480 acres have been assessed for fish consumption. All but one of 17 lakes (99 percent) were considered fully supporting aquatic life use in 2004. Likewise 98 percent of the lake acreage (three of four lakes) assessed for fish consumption were considered fully supporting this use. However, primary contact was considered impaired in over half the lakes assessed (54 percent) and secondary contact was impaired in all but one lake (98 percent of the lake acreage) assessed. It should be noted that new lake assessment methodology being developed by the Agency for future assessments will significantly reduce the number and acreage of lakes assessed for primary and secondary contact and will affect the ratio of fully supporting versus impaired lake acres for those two uses. In the past Illinois Water Quality Reports, a large majority of assessments of primary contact use in lakes were based primarily on Secchi disk transparency. As such, these previous assessments did not represent a true indication of the attainment of primary contact use as defined in “General Use” standards. All previous assessments of primary contact use in lakes based on Secchi disk transparency have been changed to Not Assessed and current assessments of primary contact use are based on fecal coliform bacteria. Since Illinois EPA typically collects no fecal coliform bacteria samples in lakes, primary contact use assessments are limited to those lakes for which fecal coliform data is available from outside sources, primarily the Lake County Health Department, Lakes Management Unit.

Potential causes of lake impairment included algal growth, suspended solids, phosphorus and habitat alteration (Figure 14). Potential sources were identified as agriculture, runoff from forest/grassland/parkland, waterfowl, flow regulation/modification, contaminated sediments, wastewater systems, streambank modification/destabilization and urban runoff (Figure 15). Causes and sources of lake impairment are also frequently unknown.

Appendix P shows all assessments for streams and lakes in the Rock River basin. Additional information is also available on the Illinois EPA website, <http://www.epa.state.il.us/water/water-quality/index.html> which includes electronic copies of the 305(b) reports and the Illinois Water Quality Mapping Tool. Illinois EPA also houses specific chemical data for monitored sites at USEPA's website, <http://www.epa.gov/storet/>, in STORET (EPA's STOrage and RETrieval data base)

State officials have issued a statewide fish consumption advisory due to the concentration of mercury found in predator fish caught in Illinois waterways. The advisory cautions pregnant women, women of childbearing age, nursing mothers and young children to eat no more than one meal a week of predator fish. This includes all species of black bass (largemouth, smallmouth, and spotted), striped bass, white bass, hybrid striped bass, walleye, sauger, saugeye, flathead catfish, muskellunge and northern pike. More restrictive fish consumption advisories apply to some water bodies in Illinois.

For more information on fish consumption advisories in Illinois, visit either the Illinois Department of Natural Resources or Illinois Department of Public Health websites.

**Table 10. Rock River Watershed Individual Use Support for Lakes, 2004.**

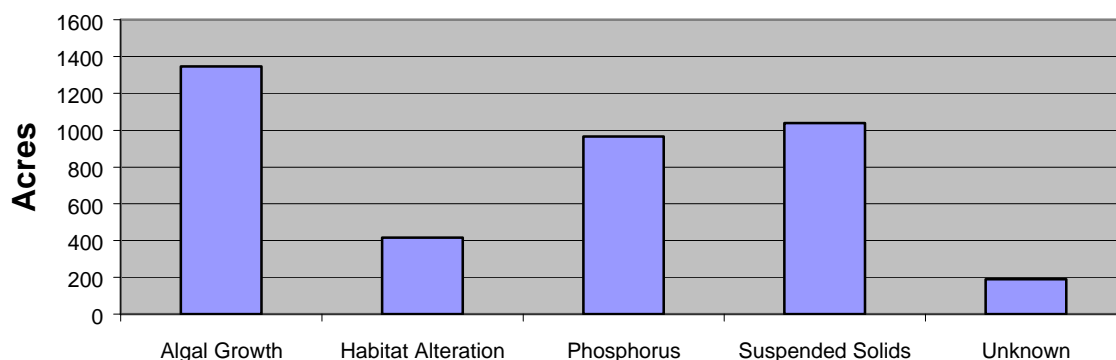
Use Support													Public Water Supply	
	Aquatic Life			Fish Consumption			Primary Contact			Secondary Contact				
	% acres			% acres			% acres			% acres				
	Acres	assessed	#	Acres	assessed	#	Acres	assessed	#	Acres	assessed	#	Miles	#
Full	1,103.9	99.4	16	469.2	98.4	3	430.9	38.8	7	22.0	2.0	1	0.0	0
Partial	7.0	0.6	1	7.5	1.6	1	603.0	54.3	8	1,011.9	91.1	14	0.0	0
Nonsupport	0.0	0.0	0	0.0	0.0	0	77.0	6.9	2	77.0	6.9	2	0.0	0
Total Assessed	1,110.9		17	476.7		4	1,110.9		17	1,110.9		17	0.0	0

Source: Illinois Water Quality Report, 2004, Illinois Environmental Protection Agency.

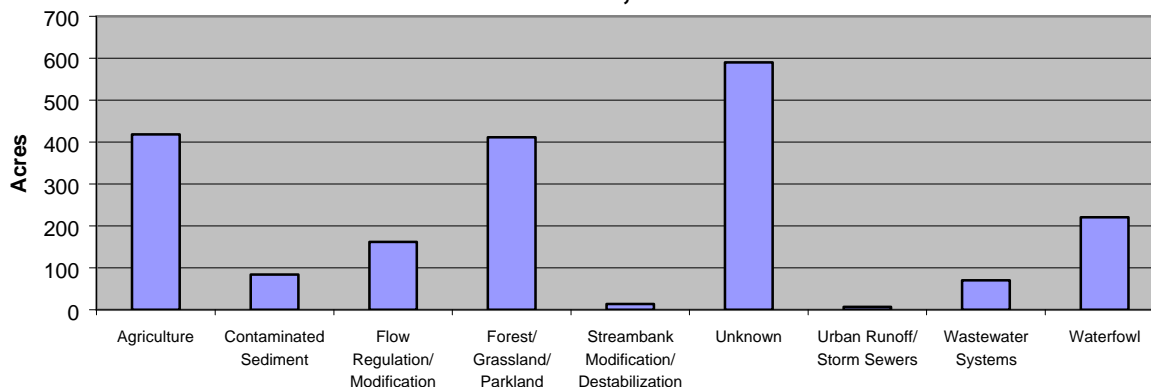
No lakes in the Rock River basin are currently assessed for public water supply use.

# Means the number of lakes assessed in each category.

**Figure 14. Potential Causes of Use Impairment in Rock River Basin Lakes, 2004**



**Figure 15. Potential Sources of Use Impairment in Rock River Basin Lakes, 2004.**





## **Impaired Waters/303(d) List**

As part of the requirements under Section 303(d) of the federal Clean Water Act, the Illinois EPA identifies waters, which will not attain applicable water quality standards with technology based controls alone (i.e., water quality limited). These 303(d) listed waters are then targeted for Total Maximum Daily Load (TMDL) studies which determine the maximum amount of pollutant loading a waterbody can assimilate and still meet water quality standards. An implementation plan is then developed to reduce pollutant loadings to acceptable levels.

Illinois' most recent 303(d) list was published in April 2004 and was based primarily on information from the Illinois Water Quality Report, 2004. The document contains the list of impaired waters in Illinois and a priority schedule for TMDL development. Those waters on the 2004 303(d) list are also included in Appendix P and highlighted in red. Figures 16, 17, 18, 19 and 20 show the location of 303(d) listed waters in the Rock River basin by sub-watershed.

Figure 16. 303(d) Listed Waters in the Green River Watershed.

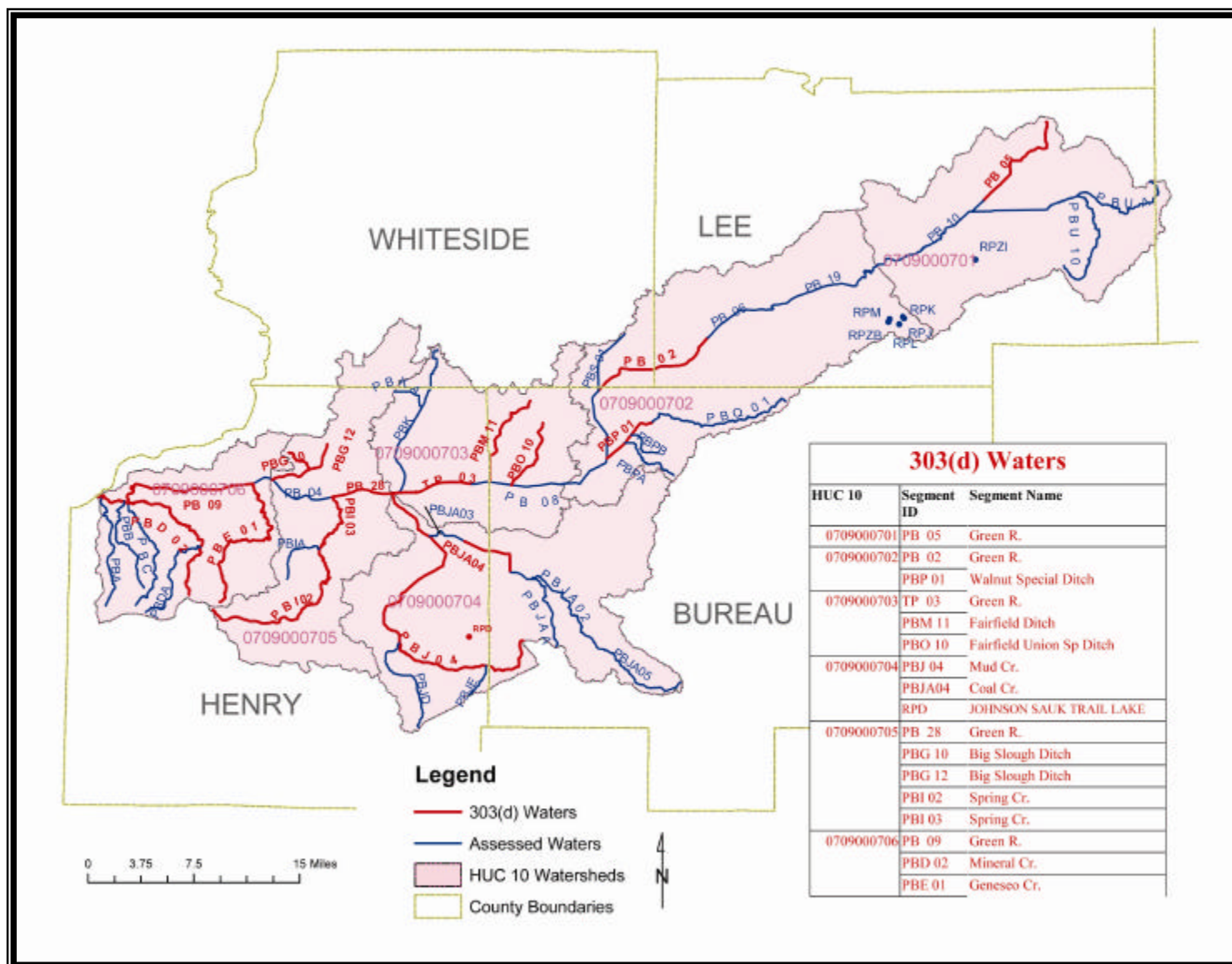
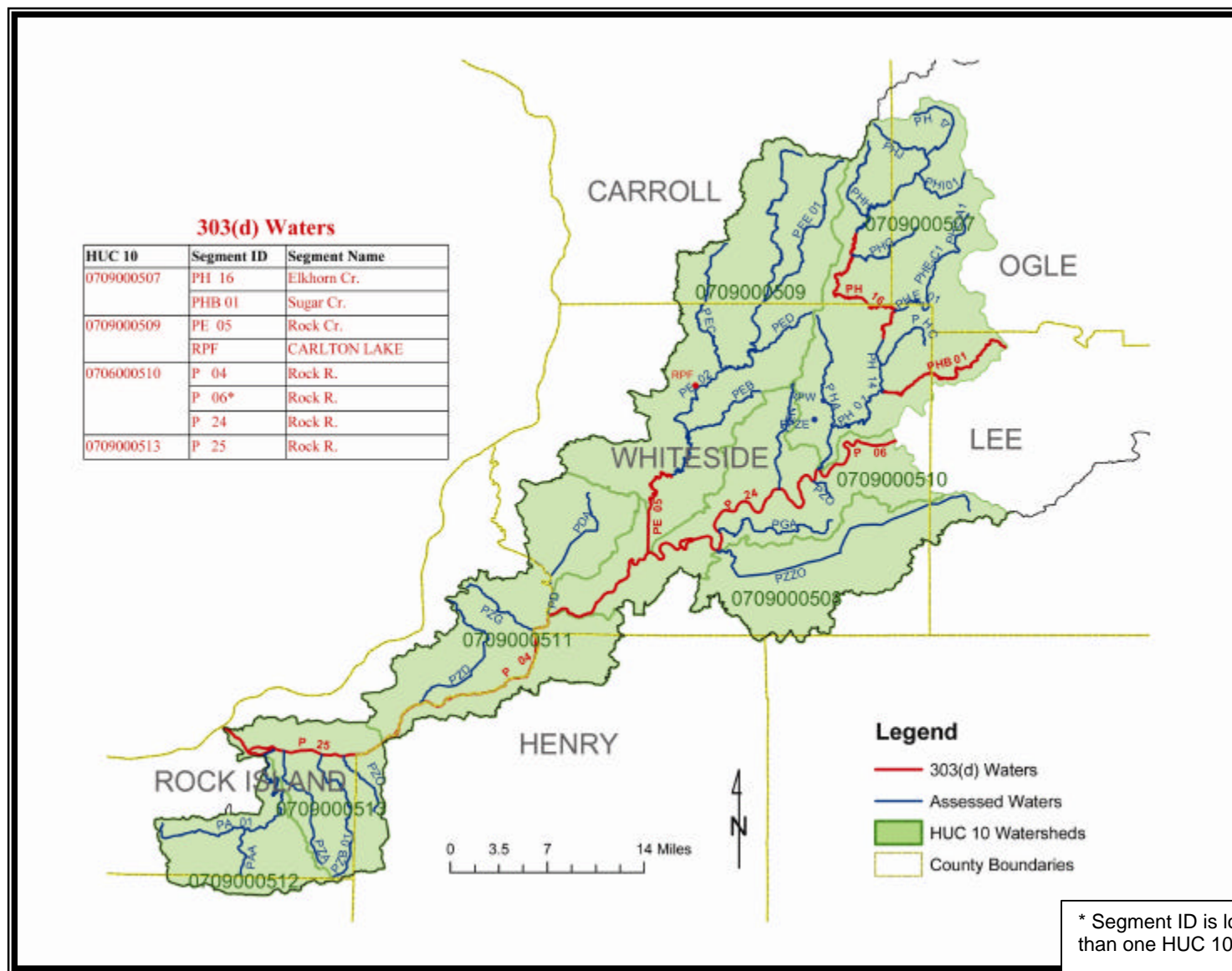


Figure 17. 303(d) Listed Waters in the Lower Rock River Watershed.



**Figure 18. 303(d) Listed Waters in the Upper Rock River Watershed.**

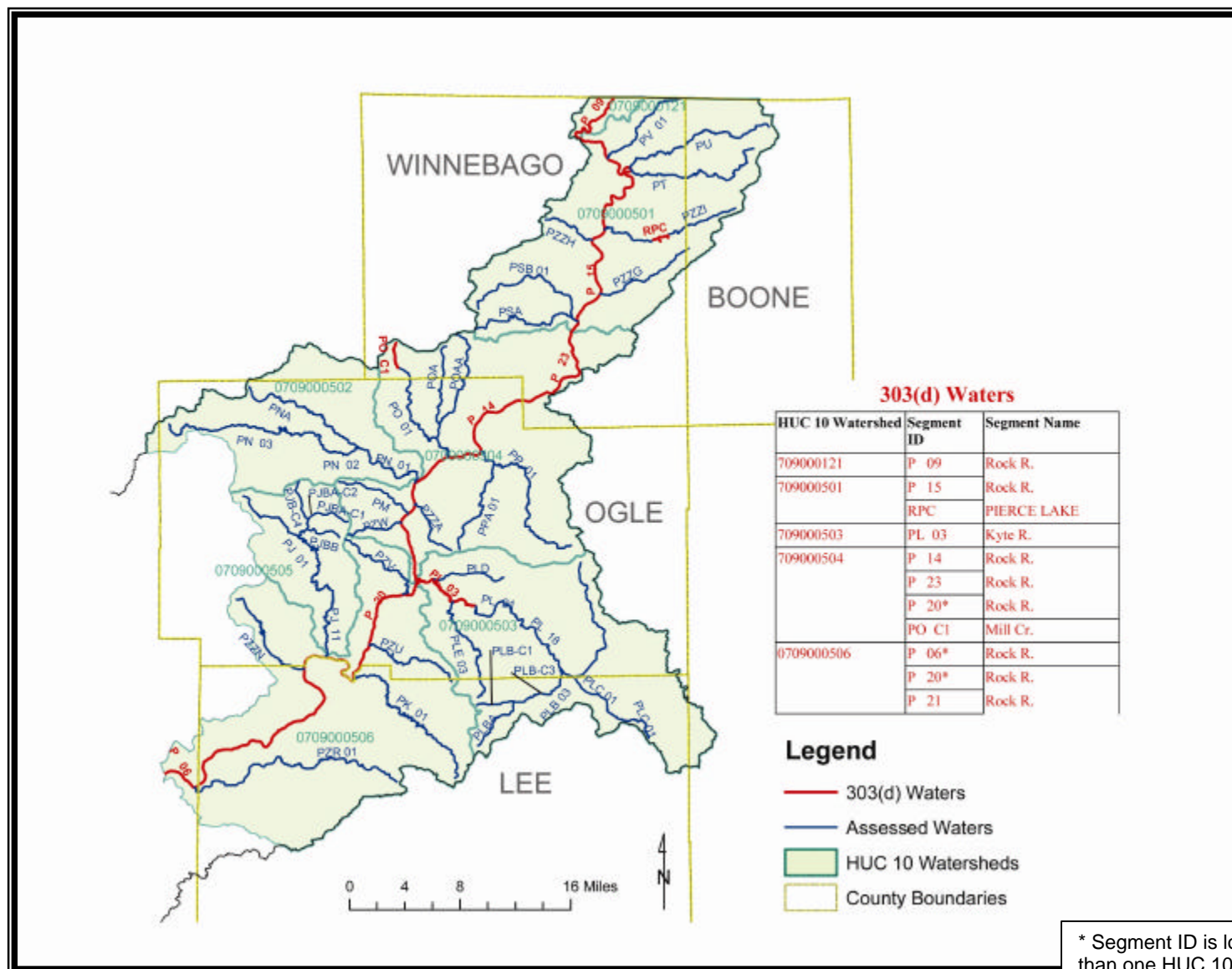


Figure 19. 303(d) Listed Waters in the Pecatonica River Watershed.

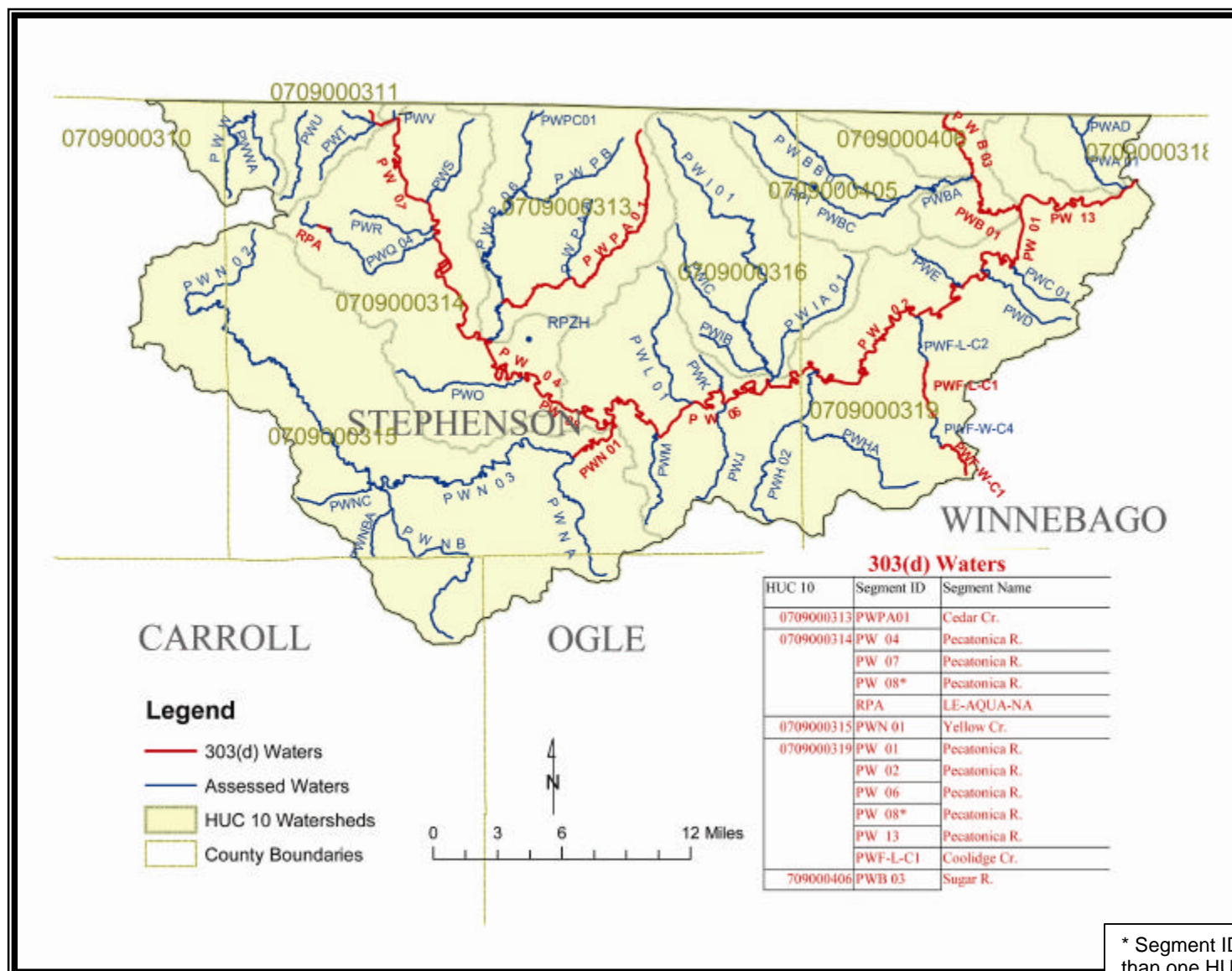
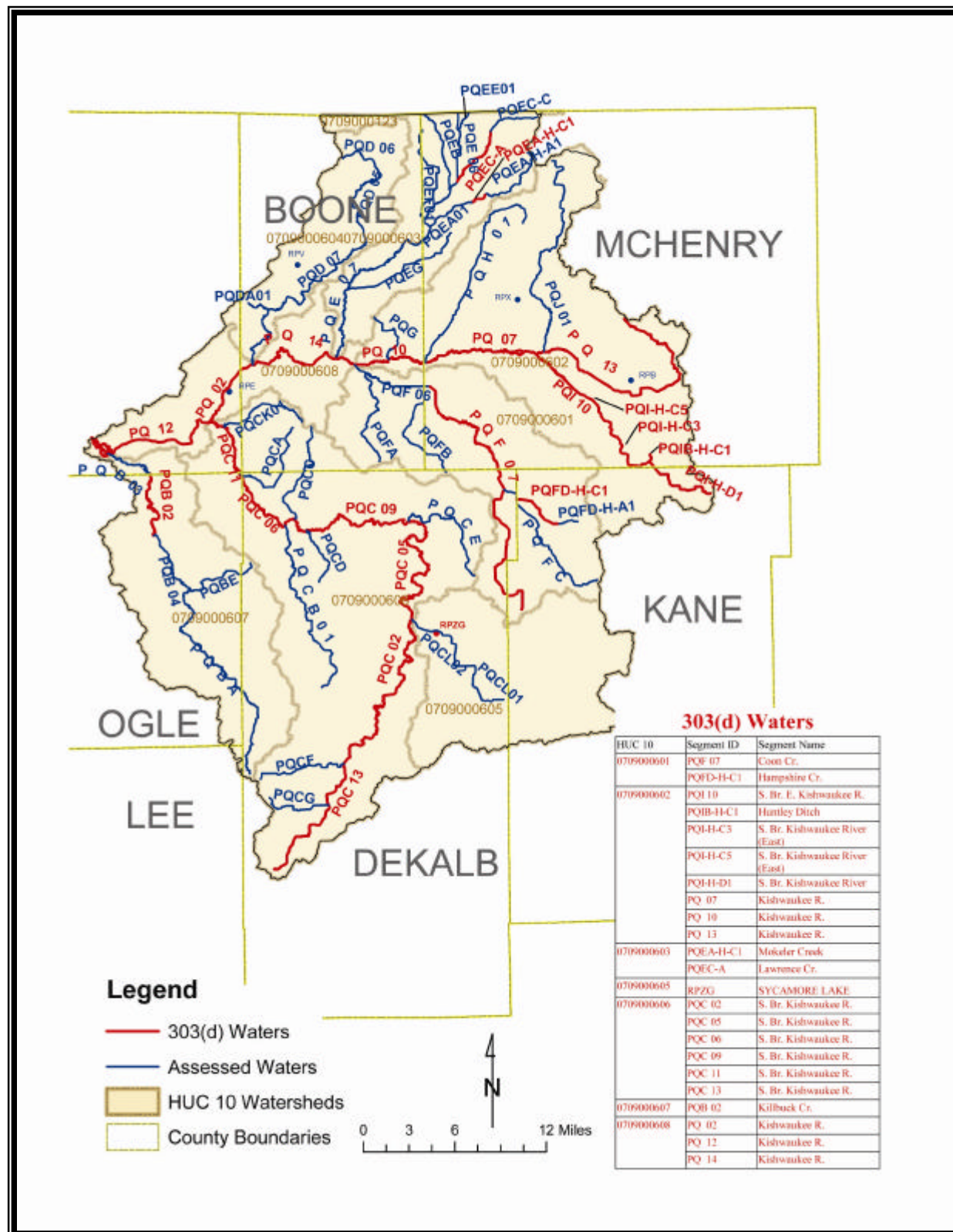




Figure 20. 303(d) Listed Waters in the Kishwaukee River Watershed.



## **Illinois EPA Surface Water Monitoring Programs**

The Illinois EPA conducts a variety of lake and stream monitoring programs within the Rock River basin designed to address four basic questions: what is the overall quality of the waters in the basin; to what extent is the water changing over time; where are the problem areas and areas needing protection; and how effective are clean water programs. Appendix Q lists the established Illinois EPA monitoring stations in the Rock River basin and their locations. The major surface water monitoring programs in the basin are described below.

The Ambient Water Quality Monitoring Network (AWQMN) is a statewide fixed station stream sampling program that monitors a wide variety of chemical and physical parameters of water chemistry. Each station is sampled nine times per year on a cycle of once every six weeks. There are 19 AWQMN stations located in the Rock River basin (Appendix Q). A subset of the AWQMN stations is sampled for pesticide contamination.

Intensive Basin Surveys (IBS) are conducted on a 5-year statewide cycle cooperatively with the Illinois Department of Natural Resources (IDNR). Typically, IBS stations are sampled for fish, macroinvertebrates, habitat, water and sediment chemistry. In addition, samples of fish flesh are collected at stations on larger streams or where evidence of fishing exists. There were 57 stations in the Rock River basin sampled as part of the last round of IBS sampling, which included five AWQMN stations. The fish and macroinvertebrate data collected in those surveys are shown in Appendix R through Z. As defined in the 2004 Illinois Water Quality Report, the sampling schedule for the watersheds of the Rock River basin are as follows: the Pecatonica River watershed in 2002, the Rock River Mainstem watershed in 2003, the Green River watershed in 2004 and the Kishwaukee River watershed in 2006.

Facility Related Stream Surveys (FRSS) entail sampling upstream and downstream of wastewater treatment plants to evaluate their impact on receiving waters. The number of stations in each survey varies from three to seven or more. Typically, these stations are sampled for macroinvertebrates, water chemistry and habitat. The timing of FRSS studies is variable and may be done in response to legal, Combined Sewer Overflow (CSO), Total Maximum Daily Load (TMDL), water quality standards issues or plant performance and toxicity issues. Over the past several years, requests have come primarily for facilities in rapidly developing basins. The most recent FRSS for the Rock River basin was completed in 2002 (Hampshire and Huntley) and 2003 (Harvard). All of these were in the Kishwaukee River watershed. The last surveys done for the Pecatonica River watershed were in 1998 (Winnebago and West Lake Village), for the Green River watershed in 1996 (Sheffield) and for the Rock River watershed in 1996 (Sterling) and 1995 (Rock Falls and Dixon).

The Ambient Lake Monitoring Program (ALMP) is a statewide monitoring program that has sampled five lakes (Sycamore – RPZG, Carlton – RPF, Pierce – RPC, Le-Aqua-Na – RPA, and Johnson Sauk Trail – RPD) in the Rock River basin. ALMP lakes are

typically sampled five times April through October at three locations for water chemistry and dissolved oxygen temperature profiles. Sediment samples are collected at the deepest site. Shoreline erosion and macrophyte assessments are conducted at each lake as well. Carlton, Pierce, Johnson Sauk Trail and Le-Aqua-Na Lakes are ALMP “core lakes,” or lakes that are monitored every fourth year for the purpose of establishing a long-term trends monitoring database. Additional information is also available on the Illinois EPA website, <http://www.epa.state.il.us/water/water-quality/index.html> which includes electronic copies of the 305(b) reports and the Illinois Water Quality Mapping Tool. Illinois EPA also houses specific data for monitored sites at USEPA’s website, <http://www.epa.gov/storet/>, in STORET (EPA’s STORage and RETrieval data base)

The Illinois Clean Lakes Program (ICLP) is designed to provide information to support the restoration and protection of Illinois lakes. The data collected is used to diagnose lake problems and provide the basis for identifying solutions to the problems identified. The sampling protocol is similar to the ALMP except that additional sampling is conducted once per month during November through March and twice per month April through October. In addition, tributary sampling is conducted for nutrients, suspended solids, baseflow and storm event. There are currently no lakes in the Rock River basin being sampled as part of the ILCP. However Le-Aqua-Na, Cherry Valley and Johnson Sauk participated in the federal version of this program.

The Illinois Volunteer Lake Monitoring Program (VLMP) is an annual monitoring program designed for citizen volunteers to collect information about the chemical, physical and biological quality of selected Illinois lakes. Approximately 10 lakes in the Rock River basin are currently being monitored as part of the VLMP they include: Bass (RPJ), Black Oak (RPK), Sunset (RPL), Woodhaven (RPM), Pine (RPZB), Summerset (RPI), Pierce (RPC), Willow (RPZH), Lost Nation Lake (RPZF), and Richardson Wildlife (RPZI). Additional lakes in the Rock River basin have participated in the VLMP in the past. At all VLMP lakes, Secchi disc measurements are taken and field notes are collected regarding water color, aquatic vegetation and other observations. Data is typically collected at three sites per lake twice per month during April through October. A subset of VLMP lake monitors also collect limited water chemistry samples as well. For specific VLMP data contact the Illinois EPA’s Surface Water Section at (217) 782-3362.

Effluent monitoring is conducted on the outfalls of permitted industrial and municipal wastewater treatment facilities to verify compliance with applicable permit limits and water pollution control laws and regulations. Parameters sampled typically include total suspended solids, pH, and carbonaceous biological oxygen demand. Additional parameters are added based on the specific permit limits. The list of facilities targeted for effluent monitoring varies annually. In addition to basic effluent monitoring, whole effluent bioassays are conducted on some facility effluents to assess its overall toxicity on representative aquatic organisms.



## NPDES Self-Monitoring Program

The achievement of sustained National Pollutant Discharge Elimination System (NPDES) permit compliance and pollution prevention are supported by compliance monitoring and timely and appropriate enforcement actions. Potential compliance problems can be identified through compliance monitoring via field inspections and the NPDES self-monitoring program. When noncompliance occurs, timely and appropriate actions, including the issuance of Noncompliance Advisories (NCAs) and Violation Notices (VNs) to achieve compliance, are key to the success of the compliance assurance program.

The overall objectives of the NPDES self-monitoring program are to collect, analyze and report accurate data that is representative of the actual discharges as required by the NPDES permit and to produce the data necessary to determine facility compliance with permit effluent limitations. Self-monitoring is the responsibility of the permittee and should:

- Identify potential problem areas that could result in noncompliance;
- Identify and result in the correction of noncompliance situations;
- Result in reporting noncompliance with the NPDES permit;
- Result in the timely reporting of accurate Discharge Monitoring Report (DMR) data; and
- Result in the reporting of other information as required by the NPDES permit.

The NPDES permit specifies the self-monitoring responsibilities of the permittee. The requirements for frequency of analysis and type of sampling (grab and/or composite) as well as flow monitoring, analytical and data reporting are specified in the NPDES permit. The information obtained from the permittees' self-monitoring programs is reported to the Illinois EPA through the submission of DMR forms. DMRs may be submitted in hardcopy form, using pre-printed forms provided by the Illinois EPA, or electronically using the Illinois EPA's eDMR system. Regardless of the reporting format used, the validity and quality of the DMR data is the responsibility of the permittee. Discharge loading data is not readily available, however, the following USEPA website provides access to ECHO and Envirofacts where discharge limits and data are provided for specific facilities: <http://www.epa.gov/epahome/Data.html>.

Table 11 shows the elements of the Agency's major surface water monitoring programs. A complete description of the Agency's surface water monitoring programs can be found in Surface Water Monitoring Strategy, 2002-2006, Illinois EPA, 2002.

Surface water chemical data collected by the Agency can be found by accessing the USEPA's Storage and Retrieval (STORET) web site: <http://www.epa.gov/storet/>. Fish, macroinvertebrate and habitat data collected by the Agency are stored in an internal database called BIOS maintained by the Bureau of Water, Surface Water Section in the Springfield Headquarters Office. The Illinois Department of Natural Resources maintains its own database for storing biological and habitat data collected by IDNR staff.

**Table 11. Summary of chemical, physical, and biological environmental indicators used in Illinois EPA surface water monitoring programs.**

	Bureau of Water Program Element								Office of Chemical Safety
BOW Section:	Surface Water Section					Great Lakes Program	Field Operations Section	Mine Pollution Control	Toxicity Assessment Unit
Program:	Intensive Basin Surveys	Facility-Related Stream Surveys	Water Quality Monitoring Network	Ambient & Clean Lake Monitoring	Volunteer Lake Monitoring Program	Lake Michigan	Municipal/Industrial Effluent Monitoring	Mine Effluent Sampling	Fish Contaminant Program
Environmental Indicator									
<b>Chemical</b>									
Water	X	X	X	X	X <sup>1</sup>	X	X	X	
Surficial Sediment	X			X <sup>1</sup>		X			
Fish Tissue	X <sup>1</sup>			X <sup>1</sup>					X
<b>Algae</b>									
Phytoplankton Identifications				X		X			
Phytoplankton Counts				X		X			
Chlorophyll a	X		X <sup>1</sup>	X	X <sup>1</sup>	X			
<b>Macroinvertebrates</b>									
Identifications	X	X	X <sup>1</sup>						
Counts	X	X	X <sup>1</sup>						
MBI	X	X	X <sup>1</sup>						
<b>Fish</b>									
Identifications	X	X <sup>1</sup>	X <sup>1</sup>						
Counts	X	X <sup>1</sup>	X <sup>1</sup>						
Index of Biotic Integrity (IBI)	X	X <sup>1</sup>	X <sup>1</sup>						
IBI Metrics	X	X <sup>1</sup>	X <sup>1</sup>						
<b>Stream Habitat Quality</b>									
11-Transects	X	X <sup>1</sup>	X <sup>1</sup>						
Stream Habitat Assessment Procedure (SHAP)		X <sup>1</sup>							
<b>Microbiological</b>									
Fecal Coliform bacteria (Total)			X				X		
<b>Toxicity Testing (Bioassays)</b>									
Daphnid, Acute Toxicity 48-hr Test							X		
Fathead Minnow, Acute Toxicity 96-hr Test							X		
Daphnid, Chronic Toxicity 7-Day Sur & Reproduction Test							X		
Fathead Minnow, Chronic Toxicity 7-Day Survival & Growth							X		

<sup>1</sup> Collected at a subset of selected sites.

## Groundwater Resources

### Groundwater Use

Groundwater in Illinois supports many beneficial uses in terms of quality and quantity. Public Act 85-863 (effective on September 24, 1987), created the Illinois Groundwater Protection Act (IGPA), and also amended portions of the Environmental Protection Act. The IGPA required the Illinois EPA to develop and the Pollution Control Board to adopt comprehensive groundwater quality standards that considered: *“...classification of groundwaters on an appropriate basis, such as their utility as a resource or susceptibility to contamination,”*

The Board classifies groundwater into one of the four following classifications: Class I: Potable Resource Groundwater; Class II: General Resource Groundwater; Class III: Special Resource Groundwater; and Class IV: Other. Class I: Potable Resource Groundwater underlies the majority of the Rock River basin. However, areas within the basin, have also been designated by the Board as Class III: Special Resource Groundwater. “Special Resource Groundwater” is described as the groundwater contributing to highly sensitive areas within the State of Illinois; such as a dedicated nature preserve and karst, that support ecologically sensitive areas. Within the basin, an area contributing to the Parker Fen Nature Preserve, within McHenry County, has been designated as a Special Resource Groundwater.

The Board has non-degradation and specific numerical standards appropriate to each class of groundwater. Pollution control programs are designed to protect the “beneficial uses” of the groundwater resources of the state. Groundwater classification and standards are discussed further in Appendix O.

For over 50 years, the USGS and the Illinois EPA have been collecting data on estimated water withdrawals by state, source of water and category. The major uses of groundwater in Illinois are domestic, public water supply (PWS), agricultural, livestock, industrial, thermoelectric and the aforementioned special resource groundwater.

Illinois uses approximately 13.8 billion gallons of groundwater per day<sup>1</sup>. Of this, more than 11 billion is used for thermoelectric power; another 1.7 billion gallons goes to public water supplies. Table 12 summarizes average fresh groundwater withdrawals, in million gallons per day (MGD.), for the counties that encompass the Rock River basin. Illinois EPA’s Environmental Facts Online (ENFO) suite <http://www.epa.state.il.us/enfo> includes the Source Water Assessment and Protection (SWAP) Internet geographic information system (GIS) (<http://maps.epa.state.il.us/website/swap/intro.htm>). Groundwater withdrawal information is available from this site to watershed planning group members that have an approved confidentiality agreement.

---

<sup>1</sup> Based on USGS Circular 1268, March 2004, which can be found at <http://water.usgs.gov/pubs/circ/2004/circ1268/index.html>

**Table 12. Fresh Groundwater Withdrawals (in MGD) within counties of the Rock River Basin.**

County	Population	PWS	Domestic	Industrial	Irrigation	Livestock	Thermoelectric	Total Groundwater
JO DAVIESS	21,821	2.37	0.91	2.56	0.13	1.12	0	7.09
STEPHENSON	48,052	4	1.62	1.45	0.11	1.49	0	8.67
MCHENRY	183,241	20.7	8.93	2.73	2.14	0.59	0	35.05
WINNEBAGO	252,913	32.8	4.25	1.72	0.42	0.39	0	39.58
BOONE	30,806	3.71	1.33	0.39	0.25	0.19	0	5.87
OGLE	45,957	5.03	1.98	0.64	0.49	0.91	0	9.05
CARROLL	16,805	1.34	0.6	1.97	2.15	0.88	0	6.94
KANE	317,477	31.7	0.15	1.04	0.86	0.4	0	34.1
DEKALB	77,932	7.7	1.69	0	0.2	1.24	0	10.83
WHITESIDE	60,186	4.95	3.8	4.14	11.1	0.74	0	24.73
LEE	34,392	4.28	0.54	0.58	2.68	0.36	0	8.44
ROCK ISLAND	148,723	1.92	1.35	0.01	1.81	0.29	0.73	6.11
HENRY	51,159	3.56	1.13	0.01	3.28	1.22	0	9.2
BUREAU	35,688	2.9	1.65	0.03	2.74	0.6	0	7.92
Totals	1,325,152	126.96	29.93	17.27	28.36	10.42	0.73	213.58

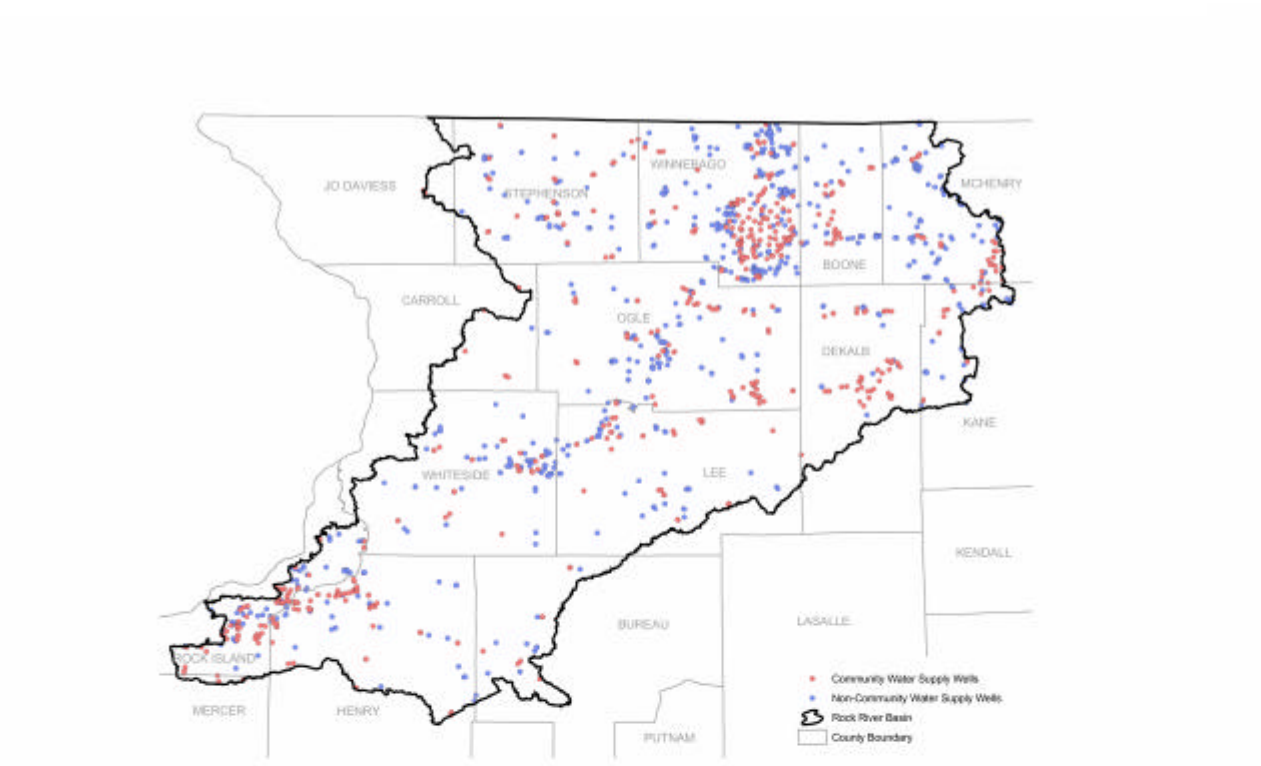
## Groundwater as Source Water

Within this basin, the public receives their potable groundwater through means of public water supply and domestic (private) wells. "Public water supply" means all mains, pipes and structures through which water is obtained and distributed to the public, including wells and well structures, intakes and cribs, pumping stations, treatment plants, reservoirs, storage tanks and appurtenances, collectively or severally, actually used or intended for use for the purpose of furnishing water for drinking or general domestic use and which serve at least 15 service connections or which regularly serve at least 25 persons at least 60 days per year. A public water supply is either a "community water supply" (CWS) or a "non-community water supply". "Community water supply" means a public water supply, which serves or is intended to serve at least 15 service connections used by residents or regularly serves at least 25 residents. "Non-community water supply" means a public water supply that is not a community water supply. "Private Water System" means any supply that provides water for drinking, culinary, and sanitary purposes and serves an owner-occupied single-family dwelling.

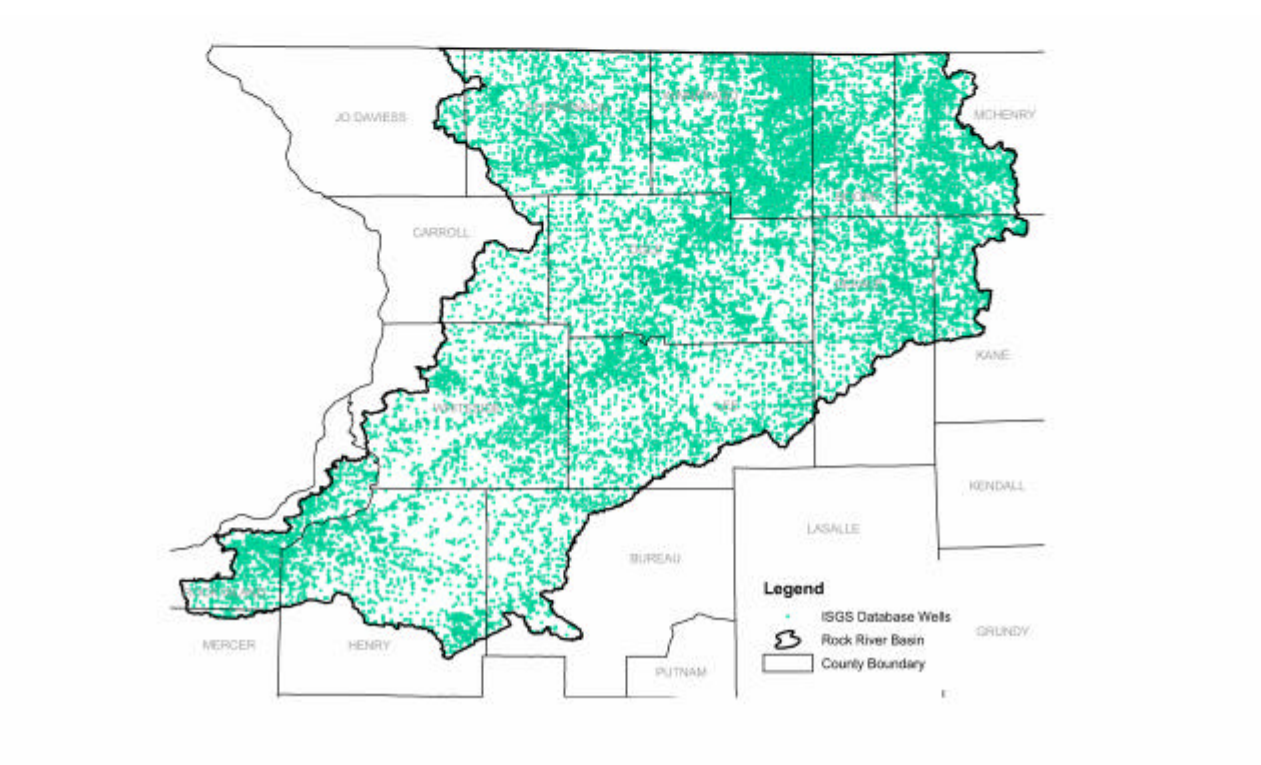
Figures 21 and 22 illustrate the source water wells as they relate to the Rock River basin.

Currently, there are 530 active CWS and 749 non-CWS wells in the basin and according to the Illinois State Geological Survey there are 39,636 private wells. The latter consist of both water and engineering wells, of which the engineering wells may not be used as potable water sources.

**Figure 21. Public Water Supply Wells within the Rock River Basin.**



**Figure 22. Private Water Wells within the Rock River Basin.**



To integrate the *Clean and Safe Drinking Water* Program areas, and to quantify vulnerable groundwater protection areas, the Illinois EPA has made use of recently completed Source Water Assessment and Protection (SWAP) program data. This program relies on water quality data collected for the Safe Drinking Water Act Compliance monitoring, and Illinois EPA Groundwater, programs. These data, in conjunction with potential source of contamination data acquired through the Wellhead and Source Water programs, were used to develop a relative susceptibility rating system for source water protection areas in Illinois. Specifically, as a result of the Source Water Assessment and Protection Program the Illinois EPA developed a geographic information system (GIS) layer of all Public Water Supply SWAP areas for groundwater dependent facilities in the state<sup>2</sup>. These groundwater source water areas (SWA) consist of:

- Phase I Wellhead Protection Area (WHPA), or 1,000-foot radial area, for confined aquifer Community Water Supply (CWS) wells;
- Phase II WHPA, minimum of five year time-related capture zone, for unconfined aquifer CWS wells with aquifer property data; and
- A 1,000-foot radial area Non-CWS SWAP Areas for groundwater dependent facilities.

A source water area layer, which coalesces all SWA into discrete areas, was used to eliminate overlap that was encountered due to proximity of some wells in the state. A relational database was created to link information from Illinois' Source Water Assessment database, Illinois Safe Drinking Water Information System, Illinois Groundwater Monitoring Databases and Illinois Water Works Data System (for potential source of contamination information).

The information contained in these databases was displayed within the Rock River basin<sup>3</sup> and used to determine the overall susceptibility of all known groundwater dependent public water supplies in this basin. *Susceptibility* is defined as the likelihood for the source water of a public water system to be contaminated at concentrations that would pose a risk to consumers. For this study the determinations of susceptibility were classified as *High*, *Moderate* or *Limited*.

---

<sup>2</sup> For a detailed description of Illinois' Groundwater Protection and Monitoring Programs see *The Illinois Water Quality Report 2004 (IEPA/BOW/04-006)*

<sup>3</sup> This coverage was created by the Illinois State Water Survey as part of the *GIS Technology Support for the Targeted Watershed Approach*, June 1996. Contract Report 600

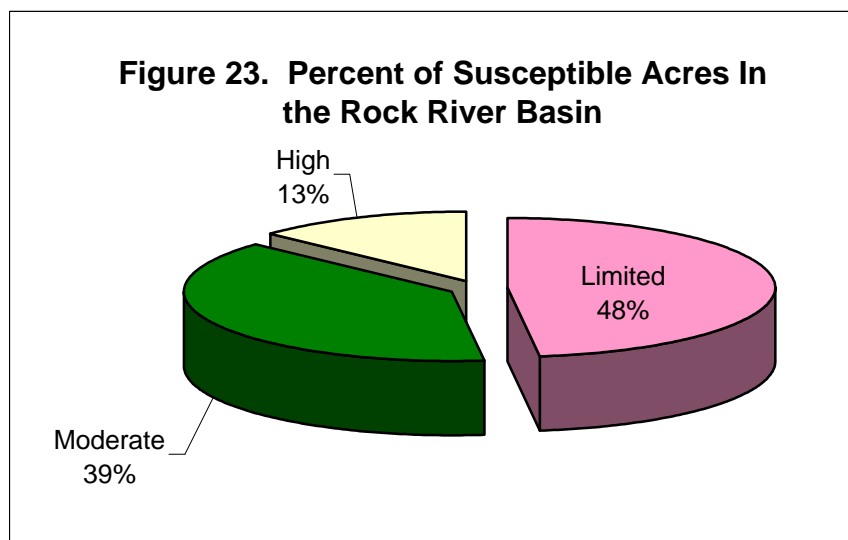
Formulated SWAP area susceptibility criteria:

*High Susceptibility SWA* = all groundwater source water areas containing at least one SWA with known groundwater contamination or any areas that are geographically connected to these known areas.

*Moderate Susceptibility SWA* = all groundwater source water areas wholly or partially utilizing an unconfined aquifer, or any areas that are geographically connected to these known areas.

*Limited Susceptibility SWA* = all groundwater source water areas exclusively utilizing confined aquifers that have no known groundwater contamination, and are not geographically connected to any of the above known areas.

Based upon preliminary data, the Rock River basin contains 678 groundwater source water areas representing 530 CWS and 749 non-CWS wells (Appendix AA). These areas make up 70,716 acres (approximately 2 percent) of the basin's 3.4 million total acres<sup>4</sup>. Nine thousand two hundred and sixty-nine acres (approximately 13 percent) were considered to have high susceptible groundwater source water areas. An additional 27,831 acres (39 percent) are considered to have moderate susceptibility groundwater, with the remaining 33,616 acres (48 percent) considered limited susceptible groundwater source water areas (Figure 23).



Through the source water assessment and WHPP, the Illinois EPA identified 7,557 potential “point” sources of contamination within the Rock River basin. The most prevalent potential source grouping was land disposal activities and the most threatening potential source grouping was chemical/petroleum processing/storage facilities. For more information refer to the section on Land Pollution in this document.

<sup>4</sup> Unless otherwise noted, all geographical calculations were performed by GIS methodologies utilizing *Illimap Projection*, a form of Lambert Conformal Conic NAD 27.



## Groundwater Monitoring Programs in Illinois

Groundwater quality is a high priority in Illinois. Water quality degradation or contamination resulting from point and nonpoint sources throughout the state is of concern. In many industrialized parts of the state (including the metropolitan areas of Chicago, Rockford and East St. Louis) groundwater in glacial deposits and bedrock aquifers has been degraded by improperly contained or disposed of chemicals. In some agricultural areas, the quality of groundwater in the underlying shallow aquifers has been degraded by the routine application of agricultural chemicals. Illinois groundwater quality monitoring programs consist of fixed station networks and intensive or facility related surveys of specific pumping centers. A detailed discussion of water quality monitoring programs, field, laboratory and data management procedures is documented in the Illinois EPA Bureau of Water's "Quality Assurance Program Plan" (Illinois EPA 1994).

### *Ambient Network of Community Water Supply Wells*

The Illinois EPA continues to operate an Ambient Network of Community Water Supply Wells (CWS Network) consisting of 351 fixed locations. This Network is designed to<sup>5</sup>:

- Provide an overview of the groundwater conditions in the CWS wells in Illinois;
- Provide an overview of the groundwater conditions in the major aquifers in Illinois;
- Establish baselines of water quality within the major aquifers in Illinois;
- Identify trends in groundwater quality in the major aquifers in Illinois; and
- Evaluate the long-term effectiveness of the Clean and Safe Drinking Water Act's program activities in protecting groundwater in Illinois.

Network stations were sampled annually from 1993 through 1995, and have been sampled within a fixed three-week time frame biennially since 1996. Water quality parameters include: field temperature, field specific conductance, field pH, field pumping rate, inorganic chemical analysis, synthetic organic chemical analysis and volatile organic chemical analysis

Within the Rock River basin, the Network consists of 57 wells (Figure 25), which have a variety of spatial and geologic properties (Appendix BB). The data collected at these sites can be used to determine use support and any groundwater trends that may exist within the Rock River basin. The ambient and compliance monitoring data for community water systems is available to the public via the Illinois EPA's ENFO suite, <http://www.epa.state.il.us/enfo/> which also includes *Drinking Water Watch* in addition to the SWAP information.

---

<sup>5</sup> For detailed design information on the CWS Network refer to Chapter 4 of Illinois' 1994 State Water Quality Report.



## Overall Use Support

The CWS Network is utilized to predict the likelihood of major aquifers in Illinois attaining full use support. As previously described, the overall use support is based on compliance with Illinois' Class I Groundwater Quality Standards (GWQS). The attainment of use support is described as full or nonsupport, as described below:

### **Full Support**

**Good** - indicates that no detections occurred in organic chemical monitoring data and inorganic constituents assessed were at or below background levels for the groundwater source being utilized;

### **Nonsupport**

**Fair** - indicates that organic chemical monitoring data exceeded detection limits, however the detection level is less than the Class I GWQS, and inorganic constituents assessed were above background level but less than the Class I GWQS;

**Poor** - indicates that organic chemical monitoring data detections were greater than the Class I GWQS and inorganics assessed were greater than both the background concentration and Class I GWQS.

## Individual Use Support

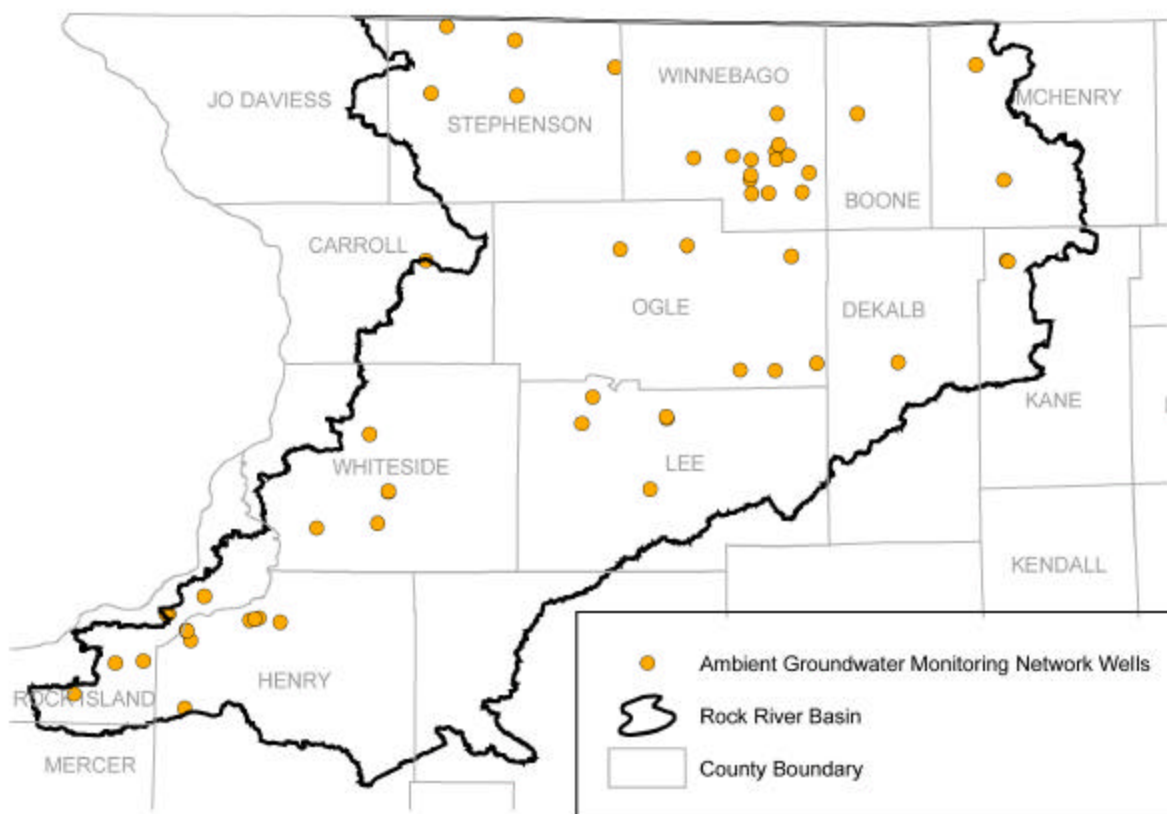
Commercial, agricultural (livestock and irrigation), industrial, mining and thermoelectric uses are assumed to be full support. This conclusion is based on withdrawal quantities and lack of data to assume otherwise. However, in certain parts of Illinois, an increase in the withdrawal of groundwater for thermoelectric use has the potential to seriously deplete groundwater.

## Potential Causes of Less Than Full Support

Potential causes of use impairment for potable groundwater are summarized as follows: volatile organic and aromatic compounds, inorganic compounds and synthetic organic compounds. These compounds may include inorganic pesticides; organic pesticides; halogenated solvents; petroleum compounds; and nitrate/nitrite. In the future, Illinois EPA anticipates the more complete evaluation of inorganic constituents with Groundwater Quality Standards. This should result in a more complete assessment of use support in the principal aquifers in Illinois.

Well data were analyzed from 2000 to the present. Over this time interval, approximately 174 of the 530 CWS wells in the Rock River basin were analyzed for Class I constituents. Of these 174 wells, 101 had detections of either volatile organic compound (VOC), arsenic or nitrate. Of the wells with detections, 10 had levels that were either equal to or above the respective standard. Fifty-three wells had nitrate concentrations above 3 parts per million (ppm). However, only three of these wells exceeded the groundwater standard of 10 ppm. Arsenic analysis indicated two wells exceeded the groundwater quality standard of 50 parts per billion (ppb). In addition, VOC monitoring data indicated 50 wells with detections of organic contaminants of which five wells exceeded groundwater standards. The synthetic organic pesticides (SOC) monitoring data did not indicate quantifiable concentrations of organic pesticides. As stated earlier, the ambient and compliance monitoring data for community water systems is available to the public via the Illinois EPA's ENFO suite, <http://www.epa.state.il.us/enfo/> that also includes *Drinking Water Watch* in addition to the SWAP information.

**Figure 24. Ambient Network of CWS Wells in the Rock River Basin**



#### *Pesticide Monitoring Subnetwork of the CWS Network*

Since 1993, the Illinois EPA has operated a Pesticide Monitoring Subnetwork of the CWS Network. Initially, Illinois EPA tested all wells in the CWS Network for triazine and alachlor using immunoassay-screening methods. However, in the 1998 monitoring cycle, Illinois EPA discontinued the use of immunoassay and randomly selected 50 percent of the network wells to be analyzed for synthetic organic chemicals (SOCs) using standard laboratory test methods. In the year 2000 monitoring cycle, the remainder of the network wells was analyzed for SOCs. The Illinois EPA anticipates that this rotation will be maintained in the future.

## *The Illinois Department of Agriculture Pesticide Monitoring Well Network*

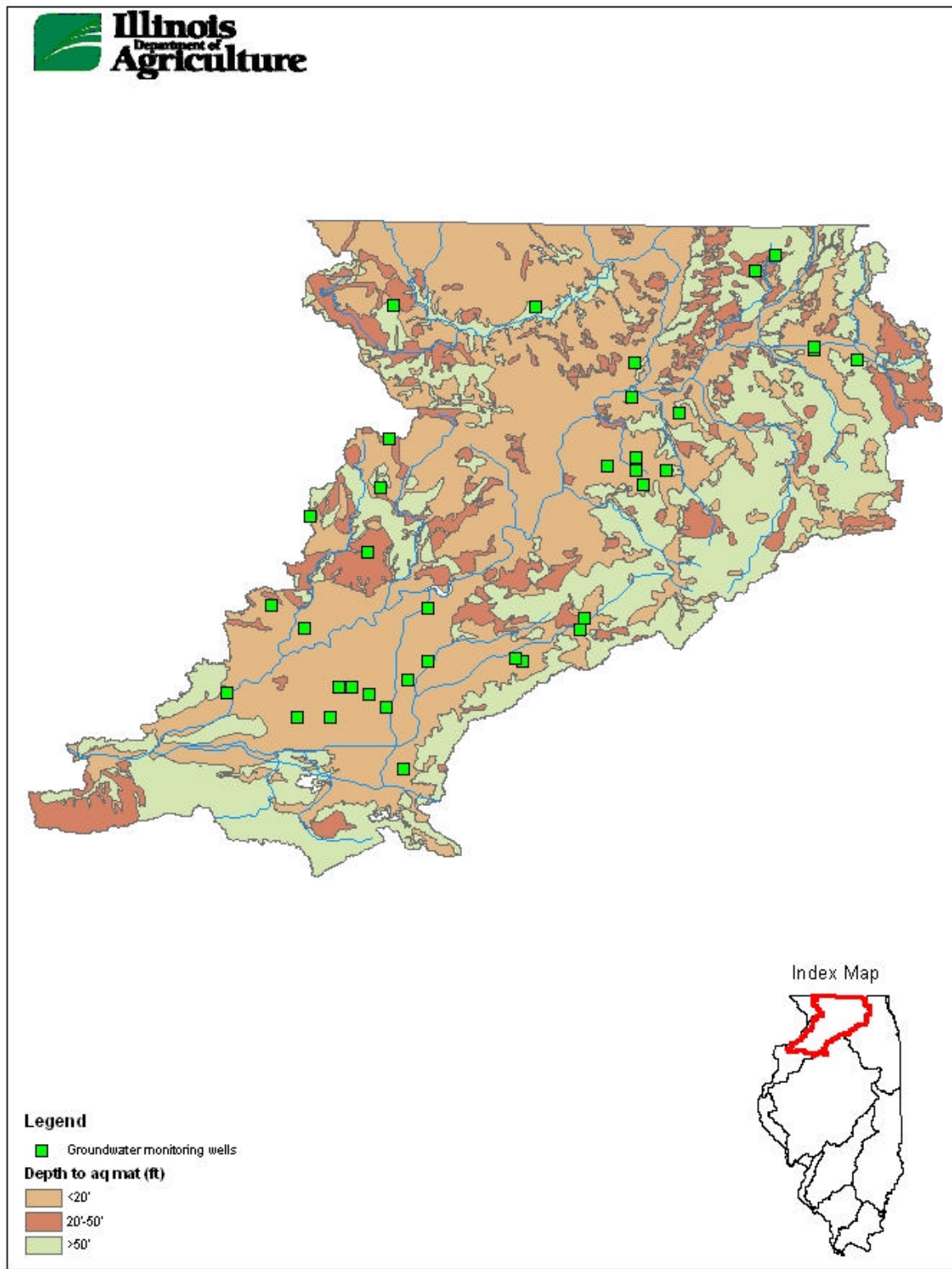
***Pesticide Monitoring in the Rock River Basin.*** The Illinois Department of Agriculture (IDA) operates a statewide monitoring well network that was designed to provide statistically reliable estimates on the occurrence of selected pesticides in groundwater within shallow aquifers (depth to the top of aquifer material less than 50 feet below land surface) in areas of corn and soybean production. More than 50 percent of the Rock River basin is underlain by aquifer materials within 20 feet of land surface; an additional 13 percent of the watershed is underlain by aquifer materials at depths between 20 and 50 feet (Figure 25). These aquifers have been demonstrated to be vulnerable to contamination by pesticides as a result of labeled uses (Goetsch, Bicki and McKenna 1992; Schock and others 1992). The *Illinois Generic Management Plan for Pesticides in Groundwater* (IDA, 2000) targets areas where aquifer materials occur within 50 feet of land surface. The network currently consists of 157 shallow groundwater-monitoring wells located throughout the state; 36 wells are located within the Rock River basin (Figure 25). Well depths vary from 10 to 83 feet. Wells are constructed of 2-inch inside diameter, PVC well casing. Most wells have a 5-foot long slotted well screen. Each well is located in public rights-of-way adjacent to row-crop fields.

The network was designed to determine the regional impacts of pesticide leaching from non-point sources, not the impacts of site-specific, point sources. The pesticides selected, as analytes are those with high use in Illinois and/or previously detected in groundwater in Illinois or other midwestern states. The monitoring network and the IDA's pesticide laboratory operate in compliance with USEPA-approved quality assurance project plan.

***Monitoring Well Network Sampling Results.*** Three rounds of sampling of the monitoring wells have been completed. (Each well in the network is sampled once during a two-year period.) During these periods, analytical detection levels and minimum reporting levels have varied. In order to allow comparison between the sampling periods, the following data on the frequency of occurrence reflect the presence of a pesticide at or above the minimum reporting levels used in the most recent sampling round (2002-2004; see Table 13). The overall frequency of occurrence refers to the presence of any pesticide, or multiple pesticides, from a single groundwater sample. For example, the occurrence of two pesticides present in a single well sample at concentrations above the minimum reporting level is considered a single detection above the minimum reporting level.

In the first round of sampling (September 1999-May 2000), pesticides were detected in two of 11 samples. Atrazine was present at concentrations of 0.24 and 0.25 ug/L in the two samples showing a detection.

Figure 25. IDA Pesticide Monitoring Network wells and depth to uppermost aquifer in the Rock River Basin (Keefer 1995).



**Table 13. Minimum reporting levels, action levels and groundwater reference values for analytes for IDA Pesticide Monitoring Network wells. (DEA, DIA and DEDIA were added in the 2002-2004 sampling period.)**

Analyte	Minimum Reporting Level(ug/L)	Action Level (ug/L) <sup>1</sup>	Groundwater Reference Value (ug/L)	Frequency of occurrence 2002-2004 (%)
acetochlor	0.15	0.2	2 <sup>2</sup>	0
atrazine	0.15	0.3	3 <sup>3</sup>	5.5
desethylatrazine (DEA)	0.15	--	--	27.8
desisopropylatrazine (DIA)	0.15	--	--	5.5
desethyl-desisopropylatrazine (DEDIA)	0.15	--	--	19.4
bromacil	1.0	9	90 <sup>4</sup>	0
butylate	1.0	4	40 <sup>4</sup>	0
metolachlor	1.0	10	100 <sup>4</sup>	0
metribuzin	1.0	20	200 <sup>4</sup>	0
prometon	1.0	10	100 <sup>4</sup>	0
simazine	0.4	0.4	4 <sup>3</sup>	0

- 1) Action level equals 10 percent of the Groundwater Reference Value.  
<http://www.epa.gov/waterscience/drinking/standards/dwstandards.pdf>
- 2) Calculated on the basis of the Reference Dose, which is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime.
- 3) **MCL:** Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are enforceable federal standards.
- 4) **HA:** Health Advisory. An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a Health Advisory is not a legally enforceable federal standard, but serves as technical guidance to assist federal, state, and local officials.

Results of the second-round sampling of the network wells (36 samples collected between September 2000 and August 2002) indicate an overall frequency of occurrence of 5.5 percent. Atrazine was detected in two samples and one of those samples had concentration (0.58 ug/L) above the action level of 0.3 ug/L. The Department re-sampled the well as required by the *Illinois Generic Management Plan for Pesticides in Groundwater* and found that the concentration was below the action level.

Results of the most recent sampling period (36 samples collected from October 2002 through September 2004) indicate that atrazine was detected in two of the 36 samples (5.5 percent). None of those samples had concentrations above levels of concern. This most recent sampling period was the first to include the atrazine degradates for analysis. One or more of the atrazine degradation products, (desethylatrazine (DEA), desisopropylatrazine (DIA) and desethyldeisopropyl atrazine (DEDIA), were present above the minimum reporting levels in 33 percent of the samples. In the current round of sampling (2004 through 2006), the Department has added metabolites of the chloroacetanilide herbicides (alachlor, acetochlor and metolachlor) to the list of analytes.

The Department of Agriculture pesticide monitoring wells are different from the Pesticide Monitoring Subnetwork of the CWS wells. Statue 415 ILCS 55/7 (b)(1) establishes a statewide groundwater monitoring network comprised of: community water supply (CWS) wells; non-community wells; a representative sampling of existing private wells; and newly constructed, dedicated monitoring wells. Thus, the integration of the CWS wells sampled by the Illinois EPA and the dedicated monitoring wells sampled by Illinois Department of Agriculture are part of this overall network. A statistical approach to design each of the sub-networks was used. This statistical approach requires the clear definition of the goals of the sub-network. In the case of CWS well sub-network the goal is to represent the statewide statistical population of CWS wells. Illinois EPA used a random stratified probability-based approach to design its network. The stratification variables were well depth range, aquifer type, and hydrogeologic susceptibility. The Illinois Department of Agriculture network was also designed based on a random stratified probability-based model. However, the goals were: 1) to test the utility of the Map of Aquifer Sensitivity to Contamination by Pesticide Leaching in Illinois as a predictive tool for state pesticide management plans; 2) to provide data on the variability of the occurrence of selected agricultural chemicals within selected units of aquifer sensitivity; and 3) to determine if the occurrence data varied seasonally.

## **THREATS TO ENVIRONMENTAL QUALITY AND REGULATORY RESPONSES**

### **Point Source Discharges**

Discharges that enter surface waters through a pipe, ditch or other well-defined point of discharge are broadly referred to as "point sources." Common point source discharges include wastewater treatment facilities serving municipalities, industries, residential developments, retail and commercial complexes, schools, mobile home parks, military installations, state parks, resorts/campgrounds, prisons and individual residences. Other wastewater point source discharges can come from municipal combined sewer overflows (CSOs), animal feeding and dairy operations, mines, groundwater remediation projects and water treatment plants.

The most significant contaminants of concern from domestic point sources (non-industrial) and CSOs include nutrients, deoxygenating wastes and dissolved solids. Bacterial contamination can also be a concern from CSOs. Fortunately, there are only three combined sewer communities (Dixon, Oregon and Prophetstown) left in the Rock River basin and some of these are in the process of eliminating their combined sewers.

Contaminants from industrial dischargers vary by source. Automotive, aerospace and hardware manufacturing industries are prevalent in the basin and potential contaminants from these sources (primarily from metal finishing operations) include heavy metals, cyanide and organic solvents. Another significant industrial category in the basin is food processing including meatpacking, dairy and vegetable canning/freezing. Contaminants of concern for these industries include nutrients, deoxygenating wastes, dissolved solids and chlorides. Power generation facilities also make use of the Rock River for cooling purposes where the main contaminant of concern is heat. In addition, the Rock River basin has a heavy concentration of limestone aggregate quarries and sand and gravel mines. Many have point source discharges for pit dewatering as well as from wet screening and washing operations. If settling is inadequate, these discharges can be a source of sediment loading and turbidity to the receiving stream.

### **NPDES Permit Program**

The National Pollutant Discharge Elimination System (NPDES) was established by the Clean Water Act (CWA) in 1972 and has been administered by the Illinois EPA since 1973. The program requires permits for the discharge of treated municipal effluent, treated industrial effluent, storm water and other dischargers. The permits establish the conditions under which the discharge may occur and establish monitoring and reporting requirements. Currently there are 231 permitted wastewater dischargers in the Rock River basin (Appendix CC). Major facilities are those which either have a daily average flow capacity over one million gallons per day (MGD) or have discharges with constituents that could impact public health or water quality. There are 24 major dischargers in the Rock River basin.



In all areas except pretreatment, the state of Illinois has been delegated National Pollutant Discharge Elimination System (NPDES) permitting authority pursuant to Sections 402 and 303(e) of the CWA, and has the responsibility for issuance, reissuance, modification and enforcement of NPDES Permits. The procedures for the issuance of permits are established by a memorandum of agreement with the USEPA; the regulations under 40 CFR 122, 123, 124 and 125; and the Illinois Administrative Code, Title 35, Environmental Protection. The priorities for permit issuance are established based on the economic needs of the state; guidance from USEPA; discussions with Region V, USEPA; and the needs of the Illinois EPA in implementing the construction grant/loan program.

A condition of all NPDES Permits is that the permittee monitor discharges and report the results to the Illinois EPA. These reports submitted by dischargers are evaluated to assure compliance with permit conditions. Instances of non-compliance are handled through procedures described in the Division's Enforcement Management System. Discharge loading data is not readily available, however, the following USEPA website provides access to ECHO and Envirofacts where discharge limits and data is provided for specific facilities: <http://www.epa.gov/epahome/Data.html>.

The Illinois EPA is currently considering issuing NPDES on a watershed basis. In the future all expired permits within a basin may be grouped together and issued on a group basis.

For more information regarding the NPDES Permit Program, contact the Permits Section, Bureau of Water at 217/782-0610.

### *Compliance/Enforcement Activities*

The Illinois EPA was delegated the compliance monitoring and enforcement of the NPDES program through a formal Memorandum of Agreement (MOA) with the USEPA in 1977. The MOA with USEPA includes requirements for permit issuance, compliance monitoring, enforcement, regulatory consistency, reporting and public participation.

The Division of Water Pollution Control (DWPC) uses a number of program elements for monitoring and maintaining compliance at regulated facilities. Inspections of various types, self-monitoring report review, compliance schedule monitoring and stream surveys are all used to monitor how well the facility is complying with applicable regulations or permit conditions. These activities are coordinated among the DWPC's Field Operations, Compliance and Watershed Management Sections and the Division of Legal Counsel.

### *Field Operations Strategy*

The CWA and federal regulations require a state with an approved NPDES program to implement “inspection and surveillance procedures to determine, independent of information supplied by regulated persons, compliance or noncompliance with applicable requirements.”

The field program strategy places top priority for field investigation and response on situations which pose threats to public health or safety or which cause or threaten to cause water quality degradation. Spills of products which threaten water resources are handled on an emergency basis in cooperation with the Agency's Emergency Response Unit (ERU). When requested by the ERU, field staff respond to such spills within a specified minimum response time and follow prescribed spill control procedures.

An additional important component of field inspection programs is response to citizen complaints and referrals from other agencies. These activities detect violations at facilities, which may not be normally regulated or inspected by the Illinois EPA.

### *Operator Certification Program*

Wastewater treatment systems protect public health and the environment only if they are being properly operated and maintained. The Wastewater Operator Certification Program is intended to protect public health, environmental quality and the financial investment of wastewater facilities. Illinois EPA certifies the technical competency of operators of domestic and industrial wastewater treatment/pretreatment facilities and also administers a voluntary certification program for operators of collection systems. Certification examinations are offered each month at various locations around the state.

### **State Construction/Operating Permit Program**

The state construction/operating permit program is based in the state Environmental Protection Act and the regulations developed by the Illinois Pollution Control Board. Permits are required for the construction of new sewers, sewage-pumping stations and for connections to the public sewers which are 1500 gallon per day or larger, or serve two or more buildings. Permits are also required for the construction of new sewage treatment plants, pretreatment equipment and industrial wastes treatment plants. Permits are required for the remodeling of sewage treatment plants, pretreatment equipment and industrial wastes treatment equipment.

The Bureau of Water's Division of Water Pollution Control (DWPC) regulates the disposal of sludge for sludge generators, where sludge is utilized for beneficial purposes. This includes application of sludge on agricultural lands, reclamation projects, dedicated land disposal, horticultural use or any other beneficial use of sludge on land. Sludge disposal by landfilling is regulated by the Division of Land Pollution Control while incineration of sludge is regulated by the Division of Air Pollution Control.

State permits are required for the land application of treated municipal sludges to cropland or other areas. There are currently 36 communities in the Rock River basin with sludge permits (Appendix DD). The DWPC reviews sludge management plans for sludge generators and utilizes the state permit program as the mechanism for approving and enforcing sludge management plans. This program allows the Illinois EPA to actively encourage the recycling of POTW generated sludge and other suitable sludge from industry to cropland. The permit system provides the controls necessary to ensure sound environmental practices. State permits are also required for the operation of non-discharge wastewater treatment systems, such as spray irrigation of treated wastewater. Six communities in the Rock River basin operate spray irrigation wastewater facilities (Appendix EE).

## **Nonpoint and Combined Point/Nonpoint Issues**

### **Agriculture**

Approximately 85 percent of the Illinois portion of the Rock River basin is devoted to agricultural production (Table 4). Because of the scale and ubiquitous nature of agriculture in the basin it is a major influence on the landscape, terrestrial and aquatic ecosystems and surface and groundwater quality.

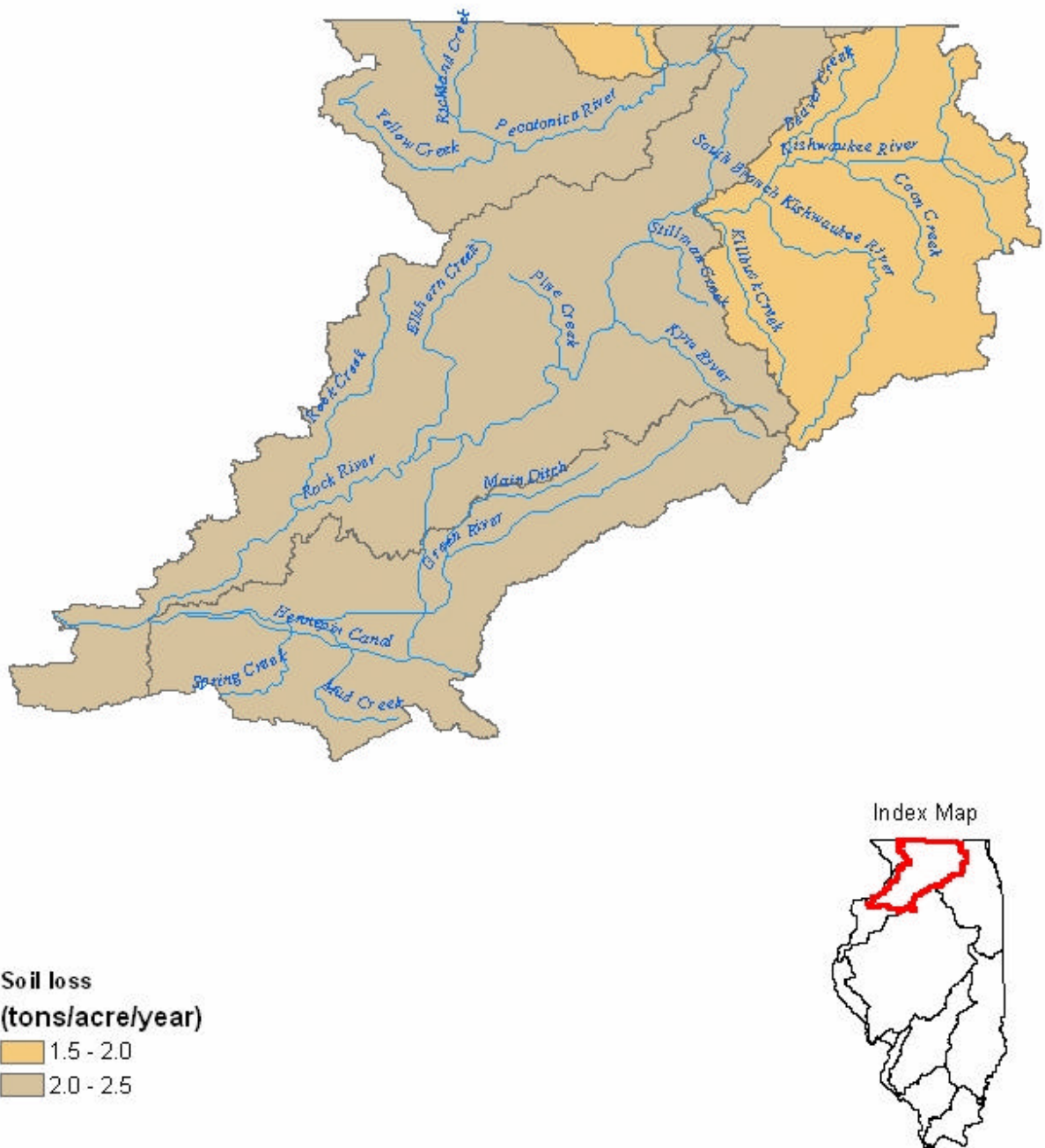
While agriculture plays a major role in the economic health of human communities by providing jobs, food, fiber and other essential products, these benefits often come at a cost to environmental health. Diverse natural ecosystems are replaced by simplified agricultural systems. Wetlands are drained and streams are channelized to improve drainage. Erosion from crop fields increases siltation in streams and lakes, degrades aquatic habitat and reduces the aesthetic quality of waterbodies. Fertilizers used to grow crops often end up in surface and groundwater causing algal blooms or excessive plant growth in lakes and streams or impairing water for human consumption. Agricultural pesticides can also contaminate surface and groundwater. Figure 13 shows agriculture as a potential source of impairment for almost 300 miles of the 1,394 miles of assessed streams in the Rock River basin.

The nature and degree to which agriculture impacts the environment is a function of many factors including the type of crop and cultural practices used, soil types and topography, distance of crop fields to surface waters, geological strata and depth to groundwater, climate, and the total amount of agriculture in the watershed among others.

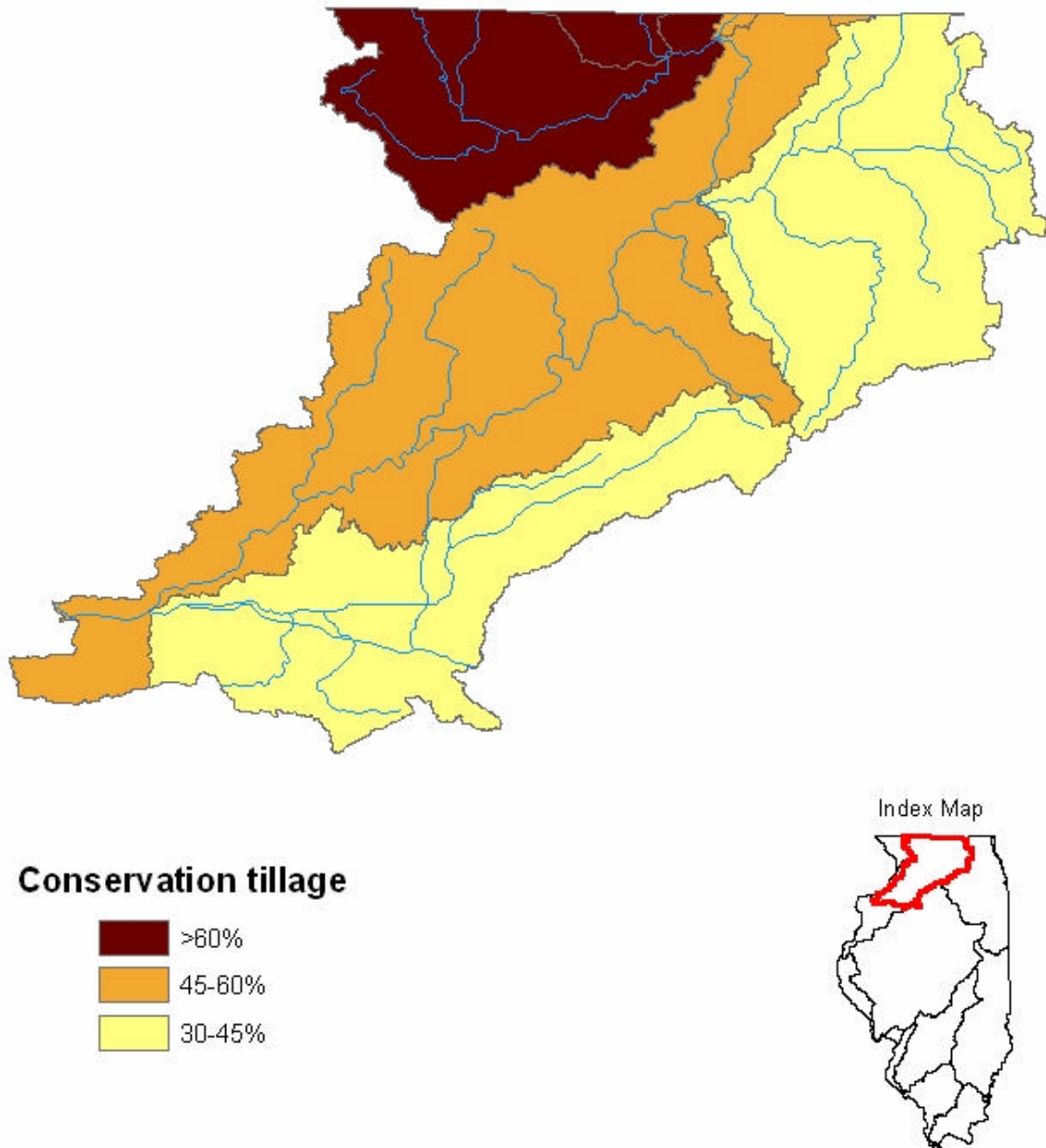
The soils and geology of the Rock River basin cause the area to be at high risk from agricultural impacts. The fine loess soils common in the watershed have a high erosion potential. Soil eroded from crop fields also carry nutrients and pesticides attached to soil particles. Figures 26 and 27 show general soil erosion rates and rates of conservation tillage in the basin. According to the 2004 T by 2000 Cropland Soil Loss Transect surveys 11 percent of the crop fields in the basin have erosion rates greater than the tolerable soil loss rate (Table 14). The same survey indicates 63 percent of fields are planted using some form of conservation tillage (Table 15).

Waterbodies in the basin are particularly vulnerable to nitrogen. Figure 11 indicates nitrogen as the most common potential cause of impairment in the basin with about 225 miles of the 1,394 assessed streams miles affected. Appendix FF shows that much of the Rock River basin has a high potential for nitrate leaching into groundwater. Figure 28 shows nitrogen usage for several counties in the basin is very high and nitrate concentrations in several subwatersheds are also high.

Figure 26. General soil loss rates in the Rock River Basin.



**Figure 27. Rates of conservation tillage in the Rock River Basin.**



Livestock can be important source of nitrogen to surface and groundwater as well. Appendix GG and HH both show that several counties in the Rock River basin have relatively high densities of livestock. Three facilities in the basin have NPDES permits (Appendix CC).

The permeability of the soils and the underlying geological strata make the basin extremely susceptible to groundwater contamination from the leaching of nitrates and pesticides as shown in Appendices FF and II. Furthermore, several counties in the watershed have relatively high levels of herbicide usage compared to the rest of the state (Appendix JJ), placing the region's groundwater at high risk of contamination.

**Table 14. Soil loss in crop fields in the Illinois portion of the Rock River Basin, 2004.**

Watershed	< or = T**		1-2 T**		> 2 T**		Total*
	No.	Percent	No.	Percent	No.	Percent	
Upper Rock River	7	87.5	1	12.5	0	0.0	8
Pecatonica River	865	89.0	87	9.0	19	2.0	972
Sugar Creek	131	93.6	5	3.6	4	2.9	140
Lower Rock River	1761	87.8	197	9.8	48	2.4	2006
Kishwaukee River	1353	91.6	115	7.8	8	0.5	1477
Green River	866	88.1	80	8.1	37	3.8	983
Totals:	4983	89.2	485	8.7	116	2.1	5586

\*Totals include unknown fields.

No. indicates the number of fields sampled in each watershed.

Source: Illinois T by 2000 Cropland Soil Loss Transects, 2004

\*\* T represents the tolerable soil loss for any specific soil. The term signifies the point at which new soil is naturally produced in greater or equal amounts to that which is lost to erosion. T values range from one to five tons per acre per year, depending on the soil type.

**Table 15. Tillage practices in crop fields in the Illinois portion of the Rock River Basin, 2004.**

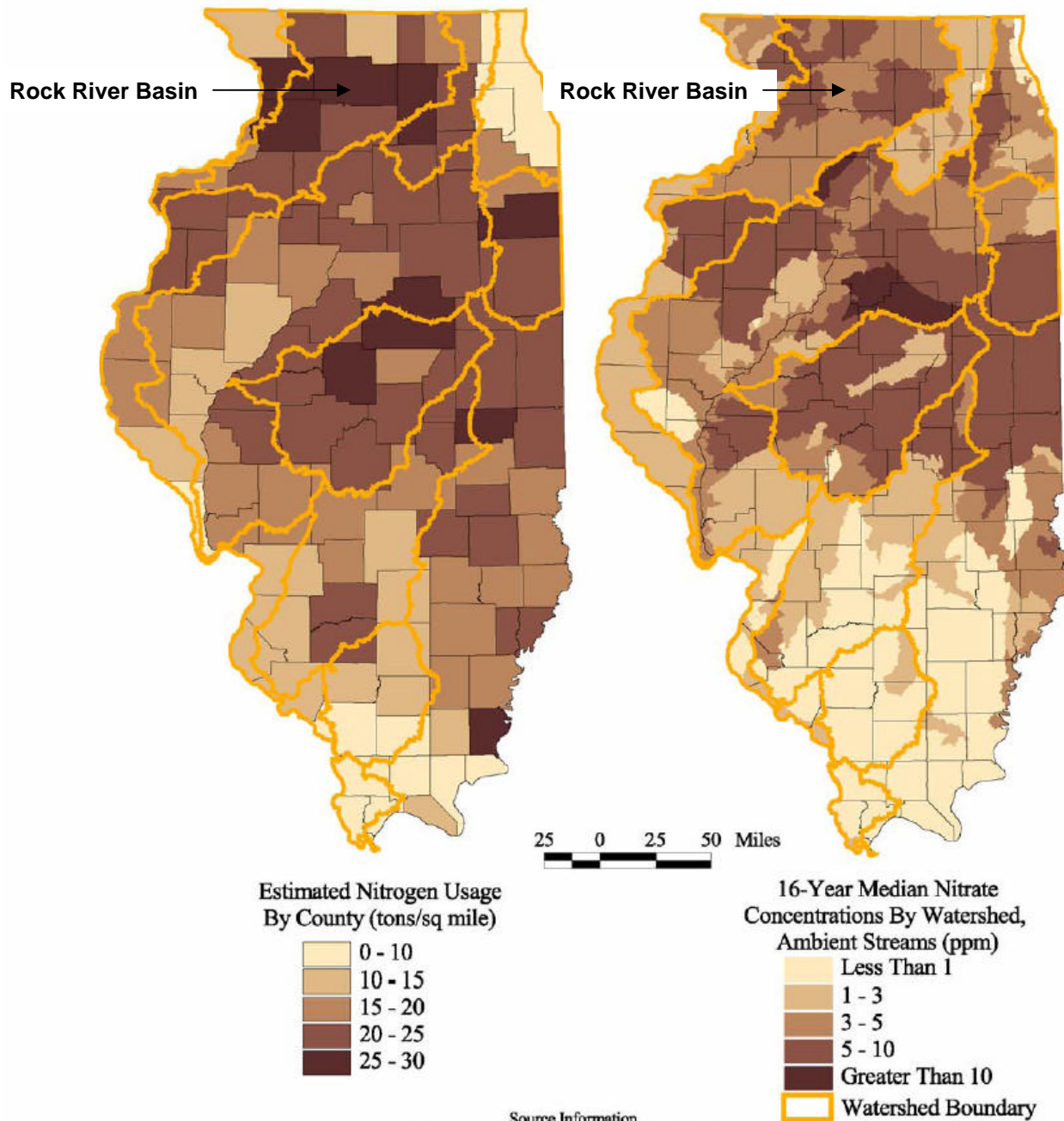
Watershed	Conventional		Reduced Tillage		Mulch-till		No-till		Total*
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Upper Rock River	4	100.0	0	0.0	0	0.0	0	0.0	4
Pecatonica River	140	27.8	117	23.2	150	29.8	97	19.2	504
Sugar Creek	14	29.8	9	19.1	11	23.4	13	27.7	47
Lower Rock River	291	27.1	315	29.4	244	22.8	222	20.7	1072
Kishwaukee River	405	53.3	227	29.9	99	13.0	29	3.8	760
Green River	223	39.9	195	34.9	118	21.1	23	4.1	559
Totals:	1077	36.6	863	29.3	622	21.1	384	13.0	2946

\*Totals include unknown fields.

No. indicates the number of fields sampled in each watershed.

Source: Illinois T by 2000 Cropland Soil Loss Transects, 2004

**Figure 28. Estimated nitrogen usage by county and nitrate concentration by watershed in Illinois.**





## **Agriculture Related Permits**

While most aspects of general agriculture are not under regulatory control, certain activities are under the purview of state or federal agencies.

Illinois EPA issues permits jointly with the Illinois Department of Agriculture (IDA) for agrichemical facilities. Agrichemical facility permit applications are reviewed in coordination with the Illinois Department of Agriculture's agrichemical containment permit program. Illinois EPA also issues permits for livestock operations. Starting in the fall of 1993, Illinois EPA started issuing a general NPDES permit to livestock operations.

In 1996, the Legislature adopted the Livestock Management Facilities Act in response to public concern about environmental effects of livestock production facilities, particularly large hog confinement facilities. Among other things, this law gives the IDA some additional responsibilities for regulating environmental aspects of these facilities. In 1998 and 1999, the legislature amended the Livestock Management Facilities Act to expand the coverage of facilities subject to the Act. For more specific data on facilities permitted by the Illinois Department of Agriculture, contact their Bureau of Environmental Programs at (217) 785-2427.

In 2004 the Illinois EPA issued a general NPDES permit for Concentrated Animal Feeding Operations (CAFOs) including those with 1000 or more animal units. Individual NPDES permits are issued to CAFOs including those with 1000 or more animal units that may need additional permit conditions beyond those in the general NPDES permit. Three facilities in the Rock River basin have individual NPDES permits (Appendix CC). For CAFOs with 1000 or more animal units, the Illinois EPA enforces the duty to apply for an NPDES permit in the event that a facility is subject to enforcement for a water pollution violation or violations. For CAFOs with more than 300 but less than 1,000 animal units that are subject to enforcement for a water pollution violation or violations, the Illinois EPA's enforcement results in either (1) a change in the design or operation of the facility, or both, such that the facility no longer is a CAFO point source or (2) the submission of an application for a NPDES permit. Targeted inspections are scheduled to identify facilities larger than 1000 animal units or otherwise subject to NPDES requirements.

For more information regarding agricultural related permits, contact the Facility Evaluation Unit of the Watershed Management Section, Bureau of Water at 217/782-0610.

## Urbanization

Urbanization of a watershed is the transformation from open or agricultural, either pasture or traditional row crop, to industrial, commercial or more typically residential use. This transformation or change to the landscape often has far-reaching effects on the ground and surface water resources. The most obvious change to the landscape is the replacement of pervious with impervious surfaces. Impervious surfaces accelerate the speed and volume of runoff after a storm event. Impacts to the aquatic system from development can be categorized into four broad groups: hydrology, geomorphology, water quality and habitat.

Hydrologic effects of urbanization include the disruption of natural water balance as water is diverted from the new landscape by impervious surfaces. This results in increased storm water runoff and increased flood peaks both of which increase flood damage in general, often to areas previously not flood prone. Conversely, rapid removal of water from the developed surface impedes ground water recharge resulting in lower dry weather flows.

Geomorphological effects of urbanization include stream widening and reduced bank stability resulting in increased bank erosion. Increased erosion results in silt being deposited on stream bottoms covering spawning areas and reducing the amount of gravel and cobble important for many species of fish and other aquatic organisms. Instream habitat for fish and aquatic insects is affected by the degradation of habitat structure as streams are channelized to accelerate water removal.

Urbanization affects water quality by increasing the load of pollutants carried to the stream in accelerated runoff. Modification of the stream channel corridor by removal of large woody plants and decreased recharge of streams by groundwater result in increased water temperature. Typical pollutant load increases to urban streams include: suspended solids and sediments, nutrients (nitrogen and phosphorus), metals (copper, lead, zinc and cadmium), oil and grease (PAHs), bacteria and pesticides.

Riparian and instream habitats are affected by urbanization through loss of buffer zones that act as filters to reduce pollutant loading to a stream, and by the creation of barriers that impede fish passage. Consequences of habitat destruction include decreased diversity of aquatic communities.

No one entity tracks development by watershed in the state of Illinois. Development in the Rock River basin is occurring at various paces within the many sub-watersheds. Because empirical data is lacking at a watershed level, population data is used to develop some inferences as to developmental changes taking place in the Rock River basin. These values are based on percent change in population from April 2000 to April 2003 from US Census Bureau data. Rates of change by county within the watershed ranged from -2.6 percent (Carroll) to +13.1 percent (Kane). Six of the 12 counties that wholly or partially lie within the watershed had less than 1 percent increase in population for the three-year period. The remaining six counties had population increases higher than the state average of +1.9 percent with McHenry, Boone and Kane counties having increases of 10 percent or greater. These three counties do not lie

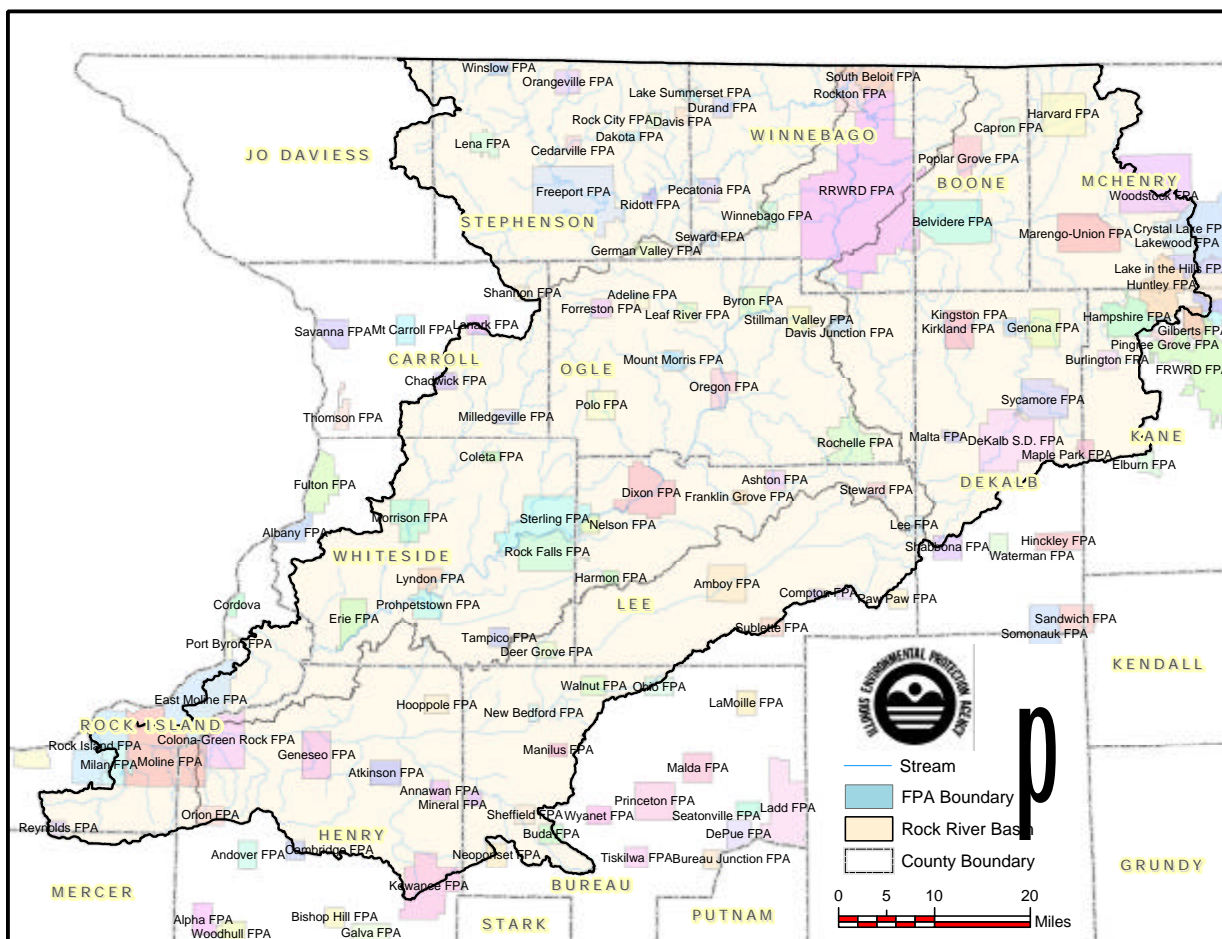
wholly within the watershed and therefore the growth is not exclusively impacting the Rock River basin. However these data put numbers on the obvious growth occurring in areas of the upper Kishwaukee River watershed as the Chicago Metro area sprawls westward. Four towns in McHenry County that are being rapidly developed are Harvard, Marengo, Union and Huntley.

## Illinois EPA's Facility Planning Area

Illinois EPA is evaluating the way it defines boundaries for the wastewater treatment areas called Facility Planning Areas (FPAs), with the goal of adopting a watershed-wide planning approach that will broaden the role of stake-holders and governmental bodies and ultimately do away with FPAs as they currently exist.

Originally, Illinois EPA's role in facilities planning was directed by Section 208 of the federal Clean Water Act (CWA). The FPA process was created largely to satisfy the requirements of the federal Construction Grants Program under Title II of the CWA. The Rock River basin has ninety (90) separate Facility Planning Areas (Figure 29).

**Figure 29. Facility Planning Areas Located in the Rock River Basin.**



## **NPDES Stormwater Permit Program**

The Clean Water Act Amendments of 1987 established the NPDES storm water program. The act called for implementation in two phases; Phase I addressed the most significant sources of pollution in storm water runoff. Phase II addresses other sources to protect water quality. The Phase II regulations were published in the December 8, 1999, Federal Register.

- Municipalities located in urban areas as defined by the Census Bureau are required to obtain NPDES permit coverage for discharges from their municipal separate storm sewer systems (MS4s). Municipalities located outside of urbanized areas may need to comply within 180 days notice or as determined by the NPDES Permitting Authority.
- Beginning on March 10, 2003, construction sites that disturb one acre or more are required to have coverage under the NPDES general permit for storm water discharges from construction site activities.
- Municipalities under 100,000 population will no longer be exempt from the construction site storm water requirements and the industrial storm water requirements effective March 10, 2003. Wastewater treatment plants of 1.0 mgd or more will need a General Storm Water Permit for Industrial Activities.
- Definition of industrial storm water has been revised to expand the "no-exposure" exemption to all industrial categories except construction. MS4 communities in the Rock River basin are listed in Appendix KK.

The expanded Phase II program began March 2003 and requires small MS4s in urbanized areas to obtain NPDES permits and implement six (6) minimum control measures. An urbanized area as delineated by the Bureau of Census is defined as a central place or places and the adjacent densely settled surrounding area that together have a residential population of at least 50,000 people and an overall population density of at least 500 people per square mile.

### **MS4 Permit Requirements:**

1. Develop a storm water management program comprised of best management practices and measurable goals for each of the following six minimum control measures:
  - Public education and outreach on storm water impacts
  - Public involvement and participation
  - Illicit discharge detection and elimination
  - Construction site storm water runoff control
  - Post construction storm water management in new development and redevelopment
  - Pollution prevention/good housekeeping for municipal operations
2. Submit a completed Notice of Intent. Municipalities and other permittees can choose to share responsibilities for meeting the Phase II program requirements.

Those entities choosing to do so may submit jointly with other municipalities or governmental entities.

3. Submit an annual report to Illinois EPA in June of each year starting in 2004.

The reports must include:

- The status of compliance with the permit conditions, including an assessment of the BMPs and progress toward the measurable goals;
- Results of any information collected and analyzed, including monitoring data;
- A summary of the storm water activities planned for the next reporting cycle;
- A change in any identified BMP or measurable goals;
- If applicable, notice of relying on another governmental entity to satisfy some of the permit obligations.

For more information regarding the Phase II Storm Water Permit Program, contact the Permits Section, Bureau of Water at 217/782-0610.

**Table 16. Status of Sediment and Erosion Control Ordinance development in the Counties that contain a portion of, or are completely within the Rock River Basin.**

	Sediment & Soil Erosion Control Ordinance	Date	Comments
Boone	Yes	4/2001	
Bureau	No		
Carroll	No		
DeKalb	No		
Henry	Yes		Geneseo has a very good ordinance.
JoDaviess	No		
Kane	Yes	2002	
Lee	Under Development		
McHenry	Yes	1/2004	
Mercer	No		
Ogle	No		Stormwater ordinance on the books
Rock Island	No		
Stephenson	Yes		Current ordinance is being updated Working on stormwater ordinance
Whiteside	No		
Winnebago	Under Development		

The following NPDES Stormwater Permit program compliance information is taken from MS4 Annual Reports submitted to Illinois EPA.

### **City of Rockford**

April 1, 1999

#### **Sedimentation and Erosion Control**

The City has recognized a need for sedimentation and erosion control ordinances based on a past history of problems with construction in the City. The City currently has no ordinance, which specifically addresses sedimentation and erosion control. To this end the City had begun a program to improve its ordinances and design procedures to minimize sedimentation and erosion control. Ordinances were reviewed and changes to the City's Design Manual were drafted. A special Design Manual for sedimentation and erosion control was also drafted to complement the revision to the Design Manual. These items are still in place.

During this process the City received notice from Winnebago County and the Winnebago County Soil and Water Conservation District (WCSWCD) that the County was pursuing the implementation of a countywide ordinance for sedimentation and erosion control. The City continues to believe that implementation of an ordinance solely in Rockford, though beneficial, would be a piecemeal attempt to address sedimentation and erosion control. Such an ordinance would address problems within Rockford's municipal limits but not outside its boundary.

The City has shifted its emphasis from an internal process of handling this issue. It elected to support the WCSWCD in its endeavors to implement a countywide program. Comments were made on the County's version of a sedimentation and erosion control ordinance. These comments by-and-large spoke to issues that would enable the City to meet its own NPDES permit obligations. Development of this ordinance under County control would better current conditions while at the same time equalize enforcement amongst all levels of government in the County. In this way selective development shouldn't go on depending on the level or the lack thereof of a particular community's enforcement actions. The City continues to support the County in this endeavor. The County has run into problems based on a current lack of initiative amongst the smaller communities in the County. This can probably be traced to the normal inertia of getting new ordinances in place and the loss of impetus at the nation level for a program for the second tier of storm water communities with populations less than Rockford's or that are contiguous to communities such as Rockford. The City believes in the regional concept and has contacted the County and will continue to push at every opportunity for implementation of a countywide soil and erosion control program.

NOTE: As of September 2005, Winnebago County's Sediment and Erosion Control ordinance is still a draft.

## **City of DeKalb**

May 31, 2005 & May 28, 2004

### **BMP No. D.1/D.2/D.3/D.4/D.6 Construction Site Runoff Control Regulatory Program**

May 28, 2004 ~ The City of DeKalb uses several existing documents to address construction site runoff control. These documents include the City of DeKalb Stormwater Management Guidelines (July 1986), and Chapter 23 "Unified Development Ordinance" (Articles 11, 14, and 17) of the City of DeKalb Municipal Code. Together, these documents address the reduction of pollutants in stormwater runoff from construction activities and include provisions that require; implementation of soil erosion and sediment control including management practices, controls and other provisions; site plan review procedures and site inspection procedures which include consideration of potential water quality impacts; and enforcement and sanctions to ensure compliance.

The City of DeKalb will amend these existing documents to require that all regulated construction sites have a stormwater pollution prevention plan that meets or exceeds the requirements of Part IV of NPDES Permit No. ILR10-, including management practices, control and other provisions at least as protective as the requirements contained in the Illinois Urban Manual, 2002 edition. The City will also amend the existing documents so that the soil erosion and sediment control requirements apply specifically to all development that results in disturbance of land great than or equal to 1 acre, and will require construction site operators to control wastes at the construction site that may cause adverse impacts to water quality.

Measurable Goal(s), including frequencies: Develop and implement ordinance amendments by the 2008. (Reported: May 31, 2005)

Milestones: Year 2: Draft ordinance amendments for Construction Site Runoff Control Program. Public presentation of draft ordinance amendments.

BMP Status: A draft model ordinance was developed in conjunction with DeKalb County. This ordinance addresses the requirements of the NPDES Phase II Permit. A presentation of the draft ordinance was made to the DeKalb County Regional Planning Commission.

The Community is on a similar schedule for the Post-Construction Runoff Control Regulatory Program.

**DeKalb County**  
May 31, 2005

**BMP No. D.1/D.2/D.3/D.4/D.6**  
**Construction Site Runoff Control Regulatory Program**

Construction site runoff is currently addressed in Chapter 30, Article I “Grading, Stormwater and Site Development Permit” of the DeKalb County Code of Ordinances. This ordinance addresses the reduction of pollutants in stormwater runoff from construction activities and include provisions that require: implementation of soil erosion and sediment control including management practices, controls and other provisions; site plan review procedures and site inspection procedures which include consideration of potential water quality impacts; and enforcement and sanctions to ensure compliance.

DeKalb County will amend these existing documents to require that all regulated construction sites have a stormwater pollution prevent plan that meets or exceeds the requirements of Part IV of NPDES Permit No. ILR10, including management practices, controls, and other provisions at least as protective as the requirements contained in the Illinois Urban Manual, 2002 edition.

The County will also amend the existing ordinance to require construction site operators to control wastes at the construction site that may cause adverse impacts to water quality.

Measurable Goal(s), including frequencies: Develop and implement ordinance amendments by the 2008.

Milestones: Year 2: Draft ordinance amendments for Construction Site Runoff Control Program. Public presentation of draft ordinance amendments.

Year 3: Adopt ordinance amendments for Construction Site Runoff Control Program

The County is on a similar schedule for the Post-Construction Runoff Control Regulatory Program.



## **DeKalb Township**

May 30, 2005

### **Information and Data Collection Results**

Year 2 activities consist primarily stormwater management program administration activities, including ordinance revisions and stakeholder meetings. Therefore, no information or monitoring data was collected during this period.

#### **BMP No. C.2 Illicit Discharge Ordinance**

Measurable Goal(s), including frequencies: Adopt and implement Illicit Discharge Ordinance by January 1, 2008.

DeKalb Township's MS4 Annual Report makes no other references to any ordinances.

## **Village of Huntley**

May 28, 2004

#### **BMP No. D1**

NPDES Permit Ordinance ~ The Village of Huntley will adopt an ordinance amending the Kane County Storm Water Ordinance to require all construction sites one (1) acre in size or greater to have a storm water pollution prevention plan that meets or exceeds the requirements of Part IV of NPDES permit No. ILR40.

Measurable Goal(s), including frequencies: Develop and implement ordinance amendment by year 2004.

Milestones: Year 1: Draft ordinance amendment.

BMP Status: A specific ordinance separate from the Kane County Storm Water Ordinance has not been developed as it has been found to be unnecessary. The Village procedures for conducting pre-construction meetings have been found to be sufficient to satisfy the Village in terms of protecting discharges into their MS4. No pre-construction meetings are held (and therefore no construction) until it is confirmed that the required NOI for a project has been submitted, the storm water pollution prevention plans (SWPPP) has been approved, the SWPPP has been signed by the contractors(s) installing soil and erosion control measures and all IEPA permits have been issued.

In addition, developers are required to provide an additional temporary cover crop plan for all disturbed areas that are dormant (no development activity) for more than thirty days. This is a plan in addition to the project approved SWPPP.

#### **BMP No. D3**

Construction Waste Control Ordinance The Village of Huntley will adopt an ordinance amending the Kane County Storm Water Ordinance to include requirements for

construction site operators to control wastes (such as discarded building materials, concrete truck washout, chemical, litter and sanitary wastes) at the construction site that may cause adverse impacts to water quality.

Measurable Goal(s), including frequencies: Develop and implement ordinance amendment by year 2004.

Milestones: Year 1: Draft ordinance amendment. Year 2: Adopt ordinance amendment.

BMP Status: The Village Building Department has an existing ordinance that requires construction site cleanup. Year 2 milestone achieved.

### **BMP No. E2**

NPDES Permit Ordinance The Village of Huntley will adopt an ordinance amending the Kane County Storm Water Ordinance to require all regulated constructions sites to have post construction storm water management that meets the requirements of Part IV, Section (D)(2)(b) of NPDES permit No. ILR40.

Measurable Goal(s), including frequencies: Develop and implement ordinance amendment by year 2004.

Milestones: Year 1: Review current Village ordinances.

BMP Status: Continuation of ordinance review.  
Under Notice of Qualifying Local Program

#### **4. Construction Site Runoff Control:**

### **BMP D.1/D.2/D.4/D.6 Storm Water Ordinance**

The Village of Huntley has adopted the Kane County Storm Water Ordinance. This ordinance addresses the reduction of pollutants in storm water runoff from construction activities that result in a land disturbance of greater than 5,000 square feet. The ordinance includes provisions that require: implementation of soil erosion and sediment control including management practices, controls and other provisions at least as protective as the requirements contained in the Illinois Urban Manual, 2002; site plan review procedures and site inspection procedures which include consideration of potential water quality impacts; and enforcement and sanctions to ensure compliance.

#### **5. Post-Construction Runoff Control:**

### **BMP E.2/E.3/E.4/E.5/E.6 Storm Water Ordinance**

The Village of Huntley adopted the Kane County Storm Water Ordinance. This ordinance addresses storm water runoff from new development and redevelopment projects. The ordinance includes provisions that require; structural and non-structural controls (including management practices, controls and other provisions at least as

protective as the requirements contained in the Illinois Urban Manual, 2002) that prevent or minimize water quality impacts; post-construction runoff quantity and quality control; and provisions for long-term operation and maintenance of Best Management Practices.

### **Rockford Township Highway Department**

June 30, 2005

Compliance with permit conditions follows:

4. Construction Site Runoff Control; Draft unified Sediment & Erosion Control Ordinance between local jurisdictions, presentation, public comment (see BMP 2), revisions, finalization, and customization for Rockford Township Highway Department.

Specifically:

4. "Begin full enforcement of Sediment and Erosion Control Ordinance" (BMP D.1, year 3) together with ancillary plan reviews (D.4) and inspections (D.6).

### **City of Rock Island**

July 1, 2005

#### **Construction Site Runoff Control**

CS-1 Storm Water Ordinance\* ~ Develop the ordinance ~ Passed by City Council and enforced beginning July 12, 2004.

(9/25/02 ~ The City is developing a storm water ordinance that will require erosion and sediment control plans for all new development and redevelopment that disturb over 10,000 square feet of land surface. The ordinance provides controls for construction site and post construction site runoff, requires inspections, and defines enforcement penalties.)

#### **Post Construction Runoff Control**

PC-1 Post Construction Runoff Ordinance\* ~ Develop ordinance and training materials ~ Passed by City Council and enforced beginning July 12, 2004

(9/25/02 ~ The City of Rock Island is developing a storm water ordinance that will address the water quality of post construction runoff. This ordinance will require that post construction controls be installed at newly developed sites. This ordinance will require ongoing maintenance and inspections. The City will provide training for staff, developers, engineers and inspectors. A separate page identifies that this criteria is applied to new development and redevelopment sites that disturb 10,000 or more square feet of land.)

\* Completed or in progress

The Northeastern Illinois Planning Commission (NIPC) has a number of model ordinances available on their website: <http://www.nipc.org/pubs-services/#odel>.

The model ordinances include:

- Model Soil Erosion and Sediment Control Ordinance: A Guide for Local Officials – 1991,
- Model Stormwater Drainage and Detention Ordinance: A Guide for Local Officials – updated 1994,
- Model Stream and Wetland Protection Ordinance 1988, and
- Suggested Water Conservation Ordinance; A Guide for Local Officials – 1980.

## Land Pollution and Other Potential Threats

Appendices LL - RR show the known locations of the following types of sites within the Rock River basin: Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)<sup>6</sup> sites; Resource Conservation and Recovery Act (RCRA)<sup>7</sup> sites; State Voluntary Cleanup sites (sites that are actively doing cleanups); Leaking Underground Storage Tank sites (sites with leaking underground storage tanks that have not received a No Further Remediation letter); Toxic Release Inventory (TRI) sites (a site that has had a toxic release to a receiving stream or publicly owned treatment works); Landfills both active or inactive; and Potential Source sites identified within Wellhead Protection Areas. These locations have the potential to contaminate both surface and groundwater and may present a public health hazard. In addition to these sources there are several other possible sources for contamination within the basin including approximately 1,669 miles of oil and gas pipelines which crisscross the basin as shown in Appendix SS. Land pollution sources in the Rock River basin are summarized in Table 17. More information on these and other potential contamination sources in the Rock River basin may be obtained from the Illinois EPA Internet GIS map server located at [www.epa.state.il.us/water/groundwater/source-water-assessment/](http://www.epa.state.il.us/water/groundwater/source-water-assessment/)

**Table 17. Numbers of Potential Land Pollution Sources within the Rock River Basin.**

Potential Contamination Source	Number
Resource Conservation and Recovery Information System (RCRIS)	1,558
Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS)	86
Leaking Underground Storage Tanks (LUST)	1,478
State Voluntary Cleanup	172
Toxic Release Inventory (TRI)	144
Landfills	213
Potential Source within Wellhead Protection Areas (WHPA)	3,331

<sup>6</sup> “CERCLA” means Superfund site. The CERCLIS Database displays site information for National Priorities List (NPL) sites (i.e., sites proposed to the NPL, currently on the final NPL or deleted from the final NPL) in a standardized site progress profile format. The profile includes information such as the current status of cleanup efforts, what cleanup milestones have been reached and how much liquid and solid-based media have been treated.

<sup>7</sup> “RCRA” requires that generators, transporters, treaters, storers, and disposers of hazardous waste provide information concerning their activities to state environmental agencies. RCRAInfo is EPA’s comprehensive information system, providing access to data supporting the RCRA of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). The RCRAInfo system allows tracking of many types of information about the regulated universe of RCRA hazardous waste handlers. RCRAInfo characterizes facility status, regulated activities, and compliance histories and captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage and disposal facilities.

## Technology Control Regulations

The Illinois EPA developed and the Illinois Pollution Control Board adopted *Groundwater Protection Regulations for Existing and New Activities within Setback Zones and Regulated Recharge Areas* (35 Ill. Adm. Code (601, 615, 616 and 617) on January 25, 1992. These regulations prohibit the continued use or operation of certain existing units within setback zones and regulated recharge areas.

The minimum setback zone established by the Illinois Groundwater Protection Act (IGPA) prohibits the siting of new potential primary, potential secondary sources, and potential routes within the 200 or 400-foot radial area around a wellhead. Of the 530 active CWS wells in the Rock River basin, approximately 60% (357 wells) have 200-foot setback zones. This means that the geology is such that the well has a natural layer of protection between the open interval and the ground surface. The other 40% (173 wells) have a 400-foot setback zone, which implies that the level of protection given by the geology is not present in these wells.

The second level of protection made available by the IGPA to counties and municipalities served by a community water well is the maximum setback zone. The maximum zone prohibits the siting of new potential primary sources within the area outside the minimum setback zone up to 1,000 feet from the wellhead. New potential secondary sources are not prohibited within this area outside the minimum zone. See <http://www.epa.state.il.us/water/groundwater/index.html> for definitions of a potential route, potential primary source, potential secondary source and setback zone. If an active community water supply well is withdrawing water from an alluvial aquifer that is located within 1,000 feet of public waters (e.g., rivers and lakes) no new potential route shall be located up to 2,500 feet from the wellhead.

Within a minimum setback zone: all on-site units for land filling or land treating or surface impounding of special and non-special waste, and all units for the storage and handling of road oils containing wastes; cessation is required to be effective two years after promulgation of Part 615 and closure to be completed three years after promulgation.

Within a maximum setback zone: all on-site units for land filling or land treating or surface impounding of special waste; cessation is required to be effective two years after the effective date of the local ordinance or Board regulation establishing the maximum setback zone and closure to be completed three years after the effective date of the local ordinance or Board regulation. Of the 530 active wells in the Rock River basin, 22 wells (making up 14 water systems) have the added protection of a maximum setback zone. A list of the CWS wells with maximum setback zones and maps of these zones are available via the SWAP Internet GIS. Maximum setback zones are established by local government or by the Board via Illinois EPA proposal pursuant to 415 ILCS 5/14.3 and 35 Ill. Adm. Code 671. Illinois EPA's *Maximum Zone Workbook* is available at: <http://www.epa.state.il.us/water/groundwater/index.html>. This workbook fully describes the process.

No regulated recharge areas have been established within the Rock River basin. However, Illinois EPA has the authority to develop and propose a regulated recharge area and is required to develop such a proposal upon petition from a Priority Groundwater Protection Planning Committee within a regulated recharge area: all on-site units for land filling of special waste where the distance between the landfill and the wellhead is less than 2,500 feet; cessation is required to be effective four years after promulgation of the regulated recharge area and closure to be completed five years after promulgation.

The existing activities subject to these regulations that are not required to cease operations and close are subject to technology controls that are intended to prevent groundwater contamination. For example, these Board rules require compliance with the Illinois Department of Agriculture (IDA) rules (8 Ill. Adm. Code 255) that subject a unit that stores or accumulates pesticides or fertilizers for the purposes of commercial application or for distribution to retail sales outlets to be stored within a secondary containment structure. In addition, these provisions require compliance with groundwater monitoring and closure/post closure requirements, maintenance of written inventory records, and weekly inspections for leaks and deterioration of structures. These are all intended to prevent groundwater and surface water contamination.

Part 616 sets forth "Standards for New Activities within a Setback Zone or Regulated Recharge Area" pursuant to Section 14.4(d) of the Act. Many provisions of Part 616 are identical to provisions of Part 615. However, there are some significant differences. Part 616 has no required closure provisions, since facilities of the type that have required closure governed by Part 615, existing activities, are statutorily prohibited if governed under Part 616 for new activities. Each new facility or unit subject to groundwater monitoring requirements of Part 616 is required to establish background concentrations for contaminants likely to be present at or released from the facility or unit. These background concentrations constitute benchmarks and triggers for preventive action. Where corrective action or preventive response must be undertaken, new facilities are required to clean up groundwater to a level consistent with the original background conditions.

In addition, Part 616 expands the area of land-use prohibition to 2,500 feet for new on-site landfills, and waste piles within a regulated recharge area. New facilities or units not prohibited are subject to design and operating requirements intended to protect groundwater if located anywhere within a setback zone or regulated recharge area. Under the authority of Section 17.3 of the Act, a regulated recharge area can be established through a Board rulemaking. Also, there are no limits on the size of the regulated recharge area.

## Mining

Mining operations in the Rock River basin are primarily either limestone aggregate or sand and gravel. The basin has by far the largest concentration of limestone quarries in Illinois with about as many as the rest of the state combined. While point source discharges from these mines can pose threats to surface waters from elevated solids levels, there are nonpoint concerns as well. All are surface mining operations that have the potential to release storm water runoff contaminated with solids and sediment from contact with exposed soils and product. Others in close proximity to streams can contribute solids due to the erosive capacity of the stream itself.

While there are currently no active coalmines in the Rock River basin there are 206 older coal mines which have ceased operation covering more than 7,100 acres (Table 18). As shown in Appendix TT, these mines are located in the southwestern portion of the watershed mostly in the Green River sub-basin. All of these mines were established before the adoption of federal regulations that set requirements and standards for reclamation of lands after mining was finished. These older (pre-law) mines were not covered under federal law and were not required to be reclaimed. Pre-law mines exist in a variety of conditions and may pose a threat to water quality from runoff or groundwater seepage.

**Table 18. Coal mines in the Rock River Basin.**

IEPA			Mine Type (acres)					
Stream Code	Name	# of mines	Shaft	Underground	Slope	Surface	Drift	Unknown
P	Rock R. <sup>+</sup>	68	61	288	66	0	14	42
PA	Mill Cr.	3	236	0	56	0	0	0
PB	Green R.	14	186	22	0	912	0	0
PBD	Mineral Cr.	6	8	*	*	10	*	*
PBE	Geneseo Cr.	2	*	*	*	*	*	*
PBI	Spring Cr.	5	*	*	*	*	*	*
PBJ	Mud Cr.	49	22	812	38	1661	13	120
PBJA	Coal Cr.	29	261	375	254	1894	0	10
PZB	Coal Cr.	28	186	134	80	0	0	686
Basin Totals:		204	960	1631	494	4477	27	858

\*Small mines less than one acre were not included in area calculations.

<sup>+</sup> Includes only those mines directly tributary to the Rock River. Numbers and acreage are not cumulative.

Mines can continue to pose threats long after they have been abandoned, if exposed areas have not been properly restored and stabilized. The IDNR Office of Mines and Minerals, Abandoned Mined Lands Reclamation Division is primarily responsible for reclamation of pre-law coalmine areas.



## Hydromodification

The natural streamflow and drainage pattern in the Rock River basin has been extensively modified by human activities. Thousands of wetland acres have been drained, hundreds of miles of streams have been straightened, widened and dredged, many miles of riparian vegetation have been eliminated, and a number of dams have been constructed on the Rock River and its tributaries. In addition, the amount of runoff carried by stream channels has increased due to urbanization and agriculture.

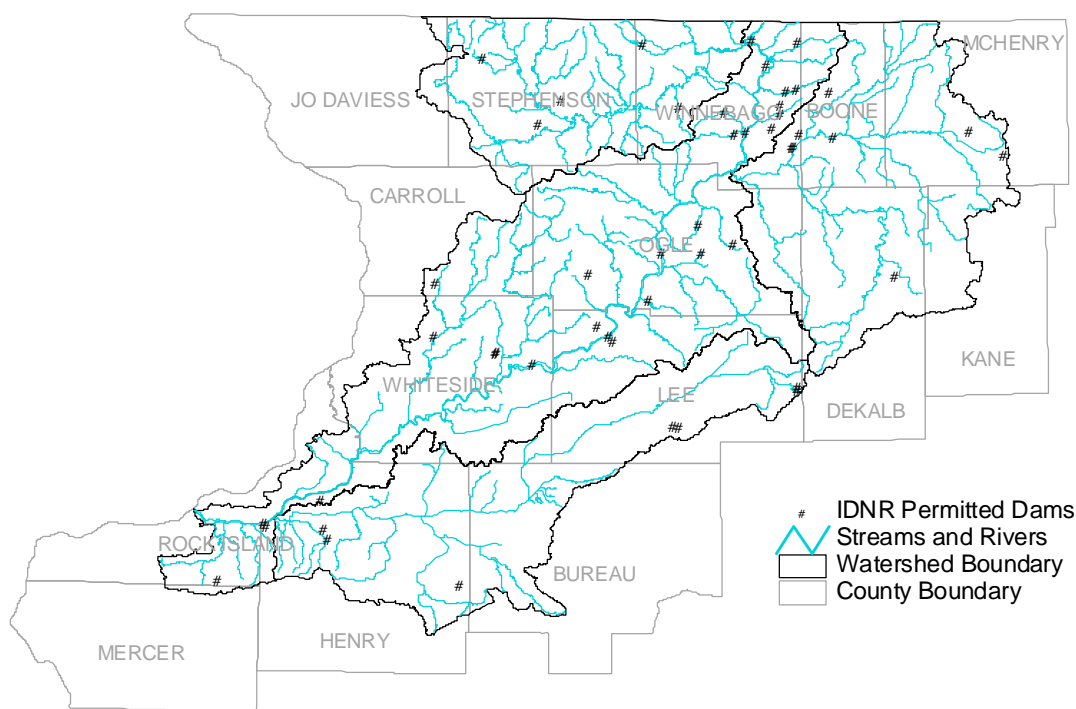
The result has generally been erosion of streambanks, downcutting of stream channels, increased sedimentation, decline in water quality, degraded fish habitat, decreased fish production, loss of aquatic diversity, and a change in flood patterns with some areas having more flooding while others have less.

As shown in Table 19 there are eight major dams on the Rock River and one on the Kishwaukee River. Other dams on smaller tributaries have also been constructed. Figure 30 gives the general location of the dams currently permitted by the Illinois Department of Natural Resources. Most of these were built to power local mills or to produce electricity. Although all of the mills and most of the hydroelectric facilities are now gone, the dams remain. Some dams negatively impact the stream ecosystem by blocking fish passage and creating conditions unsuitable for many stream fish.

**Table 19. Dams on the Rock and Kishwaukee Rivers.**

	<b>Stream</b>	<b>Town</b>	<b>Approximate River Mile</b>
Rock	Milan		4.7
	Sterling		72.8
	Rock Falls		73.6
	Dixon		87.3
	Oregon		109.6
	Rockford		136.6
	Rockton Spillway (lower)		156.2
	Rockton Spillway (upper)		159.2
Kishwaukee	Belvidere		21.9

**Figure 30. Permitted Dams for Lakes and Streams in the Rock River Basin.**



Channelization involves the straightening, widening, and/or deepening of a natural stream channel. Most channelization in the Rock River basin was done to improve drainage and decrease flooding of farmland. However, the process often results in streams with little or no riparian corridor. Hydrologic diversity is usually reduced to a uniform velocity and depth. Bottom substrates are often a uniform silt or clay and instream cover is sparse. Straightened channels have increased flow rates, which can result in downcutting, bank failure and channel erosion not only in the channelized portion, but upstream and downstream as well. These changes often result in a very degraded aquatic community.

The IDNR's Illinois Streams Information System has documented 775 miles of channelized streams located in the Rock River basin (Appendix UU). The most heavily channelized sub-watersheds are the Green River watershed, where 260 miles of streams have been channelized, and the Kishwaukee watershed with 257 miles of channelized streams. The 2004 Illinois Water Quality Report lists hydrologic modification (activities that alter the geometry and/or physical characteristics of a body of water such as dredge and fill, wetland drainage, streambank and lakeshore alteration, dam construction, stream channelization, flow regulation, bridge construction and removal of riparian or lakeside vegetation) as a source of impairment for approximately 20 stream segments in the basin totaling 150 stream miles (Table 20). Hydrologic modification is also likely a source of impairment in many streams that are not assessed: and hydrologic modification may be influencing streams that have been assessed as meeting Full Use Support and therefore sources of pollution have not been identified.

**Table 20. Illinois stream segments in the Rock River Basin impaired by hydromodification.**

<b>SEGMENT ID</b>	<b>SEGMENT NAME</b>	<b>MILES</b>
PB 05	Green River	8.49
PB 28	Green River	4.33
PBD 02	Mineral Creek	12.31
PBE 01	Geneseo Creek	13.71
PBG 10	Big Slough Ditch	6.60
PBG 12	Big Slough Ditch	0.95
PBI 02	Spring Creek	17.23
PBI 03	Spring Creek	2.25
PBJA04	Coal Creek	4.57
PBM 11	Fairfield Ditch	7.58
PBO 10	Fairfield Union Special Ditch	5.63
PBP 01	Walnut Special Ditch	4.40
PQ 13	Kishwaukee River	18.32
PQC 13	South Branch Kishwaukee River	14.06
PQEA-H-C1	Mokeler Creek	1.17
PQI 10	South Branch East Kishwaukee River	5.81
PQIB-H-C1	Huntley Ditch	0.54
PQI-H-C3	South Branch Kishwaukee River (East)	2.65
PQI-H-D1	South Branch Kishwaukee River	5.72
PWF-L-C1	Coolidge Creek	3.16

## Dredge And Fill Permits

Construction projects in Illinois waterways, floodplains and wetlands often require both state and federal authorization. Project authorizations may be required from the U.S. Army Corps of Engineers (Corps) and Illinois EPA.

Applicants seeking a permit to allow discharges of dredged or fill material into waters of the United States, including streams, lakes and wetlands, must apply to the Corps for a permit under Section 404 of the Clean Water Act (CWA). Activities that require a Section 404 permit include, but are not limited to: navigational dredging, levee construction, channel clearing, filling of wetlands for land development, and waterway impoundment for construction of a water reservoir.

The Illinois EPA issues water quality certification pursuant to Section 401 of the CWA. This certification must be issued prior to the commencement of construction activity for all projects requiring a Section 404 permit. Under Section 401, the Illinois EPA must determine whether the activities as proposed in the permit application would meet the state water quality standards of the Illinois Pollution Control Board (IPCB) at Title 35, Subtitle C: Water Pollution. The project must also meet other applicable permit requirements of the IPCB and Sections 301, 302, 303, 306, and 307 of the CWA. These sections of the CWA deal with effluent limits, water quality standards, performance standards and the control of toxic material discharged to water. Table 21 identifies the number of individual 401 water quality certifications issued by Illinois EPA in the Rock River basin between January 1, 1992 and March 14, 2006.

For more information regarding dredge and fill permits, contact the Facility Evaluation Unit of the Watershed Management Section, Bureau of Water at 217/782-0610.

**Table 21. 401 Permits Issued by Illinois EPA in the Counties that contain a portion of, or are completely within the Rock River Basin.**

<b>County</b>	
Boone	22
Bureau	59
Carroll	41
DeKalb	42
Henry	23
JoDaviess	72
Kane	252
Lee	53
McHenry	239
Ogle	51
Rock Island	154
Stephenson	34
Whiteside	90
Winnebago	105

## **PROGRAMS AND EFFORTS FOR WATER QUALITY PROTECTION AND RESTORATION**

### **Illinois EPA's Watershed Management Program**

The objective of Illinois' Nonpoint Source Management Program (NPS) is to “*develop an integrated, holistic process to effectively and efficiently protect, enhance and restore the physical, chemical, and biological integrity of our water resources within a defined hydrologic area.*” While this objective is implemented through many different types of programs and projects, it is the intent of the Agency to employ a watershed management approach for most aspects of its NPS program, as well as other Bureau of Water programs (i.e., Surface Water Monitoring, Illinois Clean Lakes Program). By using a watershed approach to restoring or protecting water quality, the Agency looks holistically at the range of problems that affect a given watershed, taking into account that most watersheds are not experiencing a single problem, but are often faced with an array of interrelated concerns.

### **Watershed-Based Planning**

A “key” element of watershed management is the development and implementation of watershed-based plans. These are similar to the Watershed Implementation Plans (WIP) that were adopted throughout Illinois during the 1990s. However, USEPA's revised guidance in August of 2003 mandated that all future watershed plans funded by USEPA or expected to receive USEPA funding for implementation must contain the “nine-minimum elements” for watershed planning. They include: 1) causes and sources of pollution; 2) an estimate of load reductions needed to meet use support; 3) a description of Best Management Practices (BMP), sites identified for BMPs and expected load reductions for each BMP; 4) cost of implementation; 5) an information and education component; 6) a schedule for implementation; 7) interim, measurable milestones; 8) a set of environmental or administrative criteria that will be used to measure whether load reductions are being achieved; and 9) a monitoring and evaluation component to track success.

Through this Rock River Basin Assessment, the Illinois EPA Bureau of Water (BOW) is piloting a process that will strengthen our Watershed Management Program. For this pilot project the Agency has attempted to incorporate all aspects of the BOW into a watershed approach, including water pollution control and drinking water issues, regulatory and non-regulatory programs and surface and groundwater programs. At the completion of this effort the BOW will assess the strengths and weaknesses of this pilot effort and adapt it for future uses within the BOW and for all of the Agency's watershed-based planning.

## Existing Watershed Planning Groups

The Conservation 2000 Ecosystems Program was established in 1996. The mission of the program is to *“monitor, maintain, enhance and restore biological diversity and ecological conditions of the Illinois landscape through local partnerships.”* The Ecosystems Program is based on Ecosystem Partnerships, which are coalitions of local stakeholders including private landowners, businesses, scientists, environmental organizations and others. Each partnership works toward restoring and enhancing the ecosystem in a specific partnership area. Projects of the Ecosystem Partnerships are funded through Conservation 2000 legislation. The IDNR Lower Rock River Basin Critical Trends Assessment identifies land management tips aimed at increasing local biodiversity by improving and protecting critical habitats. The tips are as follows:

- Restore grassy and sedge-dominated wetlands to attract threatened and endangered species such as the least and American bitterns, green heron, king rail and marsh wrens. The Green River Conservation Area in particular would be a likely area for trumpeter swans to begin nesting again in Illinois. While there is a paucity of public sites large enough to attract breeding birds, the smaller areas could be managed as stopover sites to attract migrating species such as warblers and vireos.
- Leave dead trees standing in woods to offer nesting or roosting places for bats and flying squirrels.
- Leave unmowed strips around ponds to provide refuge for reptiles and amphibians and nesting sites for birds.
- Delay mowing hayfields in which bobolinks nest to spare young birds, since mowing kills as many as 94% of nestlings.
- Reestablish streamside grasses, shrubs and trees to restore the ecological richness of streams. For example, in spite of being surrounded by farmland, Fairfield Ditch #1 has clear water because its banks are protected by a sediment-catching buffer of small trees and grasses some ten feet wide.
- Improve spawning habitat. Place artificial rock spawning beds in selected spots within the Mill Pond at Franklin Creek State Natural Area to improve habitat for small mouth bass.
- Create forested corridors to enhance habitat for wide-ranging mammalian predators such as the gray fox or bobcat. Habitat connectedness is especially important for reptiles that forage in lowlands but retreat to uplands to hibernate. Amphibians like the American toad travel long distances between lower, wetter places where they breed and drier upland prairies or forests where they spend the rest of their lives.

There are five Ecosystem Partnerships covering the Rock River basin. They are shown in Figure 31 and described below.

### **Lower Rock River Ecosystem Partnership (Rock River Watershed)**

Don Swensson  
Quad City Conservation Alliance  
5301 11th Ave. C.  
Moline, IL 61265  
[gcca@aol.com](mailto:gcca@aol.com)

The Lower Rock River Ecosystem Partnership was created in 1997 to help in the education of local landowners on conservation projects, to protect, preserve and restore natural and agricultural resources, and to aid other local partnerships. One project that the partnership is working at includes a natural educational area, creating a learning center at Franklin Creek Grist Mill. Another project that the partnership is involved with is assisting landowners with warm season grass establishment using no-till conservation planting practices.

To date this partnership has implemented 24 projects, totaling over \$5.8 million. There have been 10,860 feet of stream restored, 685 upland acres restored and 1,429 students and teachers educated: Six specifically related to stream and wetland restoration and three to further watershed education. The other projects have water quality benefits through the protection of surface water from nonpoint source pollution by establishing buffers and cover in the upland areas of the watershed.

### **Rock River Ecosystem Partnership (Rock River Watershed)**

Robert Vogl  
1230 E. Honey Creek Rd.  
Oregon, IL 61061  
[sonia@essex1.com](mailto:sonia@essex1.com)

This Partnership has implemented 21 projects that total \$1.4 million, including 150 feet of stream restored, 197 upland acres restored, 328 acres of land acquired and 3,826 students and teachers educated. Of the 21 projects implemented, two were in stream or wetland restoration, one was targeting nonpoint source pollution and five targeted education, including one that focused on education of local planning commissions and zoning boards.

## **Sugar-Pecatonica Rivers Ecosystem Partnership (Pecatonica River Watershed)**

Sue Merchant  
Natural Land Institute  
320 S. Third St.  
Rockford, IL 61104  
[nli@aol.com](mailto:nli@aol.com)

The Sugar-Pecatonica Rivers Ecosystem Partnership was created in 1997. The main goal of the partnership is to promote community outreach to improve natural resources while creating a larger link between the community and the natural world. Protection is being accomplished through educating landowners on various conservation options as well as benefits of prescribed burning. The partnership is also purchasing land in order to prevent development on existing wildlife natural corridors.

This Partnership has implemented 19 projects that total \$3.5 million. As part of these projects 5,560 feet of stream have been restored, 1,330 upland acres restored and 846 acres of land acquired. Of the projects implemented, three were specifically targeting stream or wetland restoration, one water quality improvement planning and several others implemented land cover restoration.

## **Upper Rock River Ecosystem Partnership (Rock River Watershed)**

Dennis Anthony  
USDA Service Center  
4833 Owen Center Road  
Rockford, IL 61101  
[Dennis.Anthony@il.usda.gov](mailto:Dennis.Anthony@il.usda.gov)  
(815) 965-2392

The group completed a watershed plan in 2002. To date six projects totaling \$268,000 have been implemented as part of the watershed plan, 3,500 feet of stream have been restored and 21 upland acres restored. One of the projects is a shoreline stabilization project that demonstrates three different approaches to streambank stabilization. This project will be used throughout the basin to help other projects identify the best approach for individual projects. There has also been a comprehensive watershed assessment project that led to the completed watershed plan.



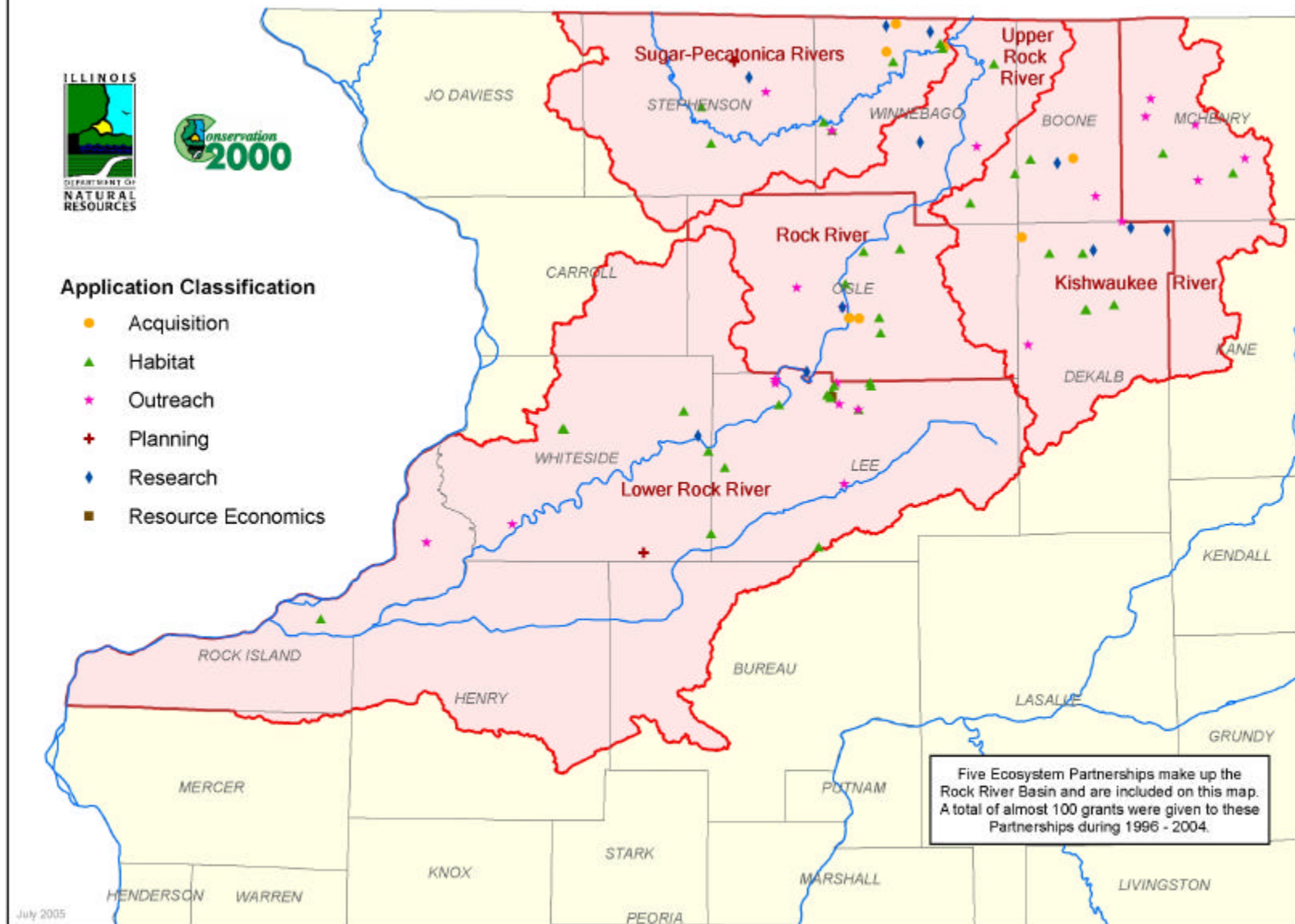
## **Kishwaukee River Ecosystem Partnership (Kishwaukee Watershed)**

Nathan Hill  
P.O. Box 715  
Belvidere, IL 61008  
[krep@inwave.com](mailto:krep@inwave.com)  
(815) 621-9358

The Kishwaukee River Ecosystem Partnership (KREP) has a three-phase plan to help implement its goals. The main goal is to identify natural resource objectives and strategies through an all-inclusive watershed planning process. The first two phases of the project have been completed, including identification, compilation, and analysis of GIS land use data. The project is currently in its third and final phase, creating the final plan for stakeholder outreach.

To date 29 projects have been implemented, totaling more than \$1.7 million. The projects include 10,560 feet of stream restorations, 609 acres of upland restoration, 332 acres of land acquisition and 5,842 students and teachers educated. Eight of the projects are specifically targeting stream and wetland restoration. Six projects are education, including one targeting municipal officials. Four projects are planning/assessment projects that are being used for watershed planning purposes.

**Figure 31. IDNR Conservation 2000 Grants in the Rock River Basin.**



Several other local stakeholder groups (below) are either in the process of developing local watershed plans or have completed local watershed planning efforts.

**North West Illinois Waters (Rock River Watershed)**

Jim Dykema  
Carroll County SWCD  
807-C S. Clay St.  
Mt. Carroll, IL 61053  
[jim.dykema@il.usda.gov](mailto:jim.dykema@il.usda.gov)  
(815) 244-8732 ext. 3

No additional information is available.

**Village of Carbon Cliff (Rock River Watershed)**

Ken Williams  
Mayor, Carbon Cliff  
106 1st Ave., PO Box 426  
Carbon Cliff, IL 61239  
(309) 792-8235

No additional information available.

**Piscasaw Creek (Kishwaukee Watershed)**

Steve Jann  
USEPA  
(312) 886-2446

A Watershed Plan was completed in 2001. No additional information available. USEPA has stepped out of this project.

## **Funding Mechanisms**

Illinois EPA directs a portion of its available financial and staff resources to assist watershed groups in implementing controls for point and nonpoint sources of pollution while maintaining historical program integrity. Illinois EPA Section 319 funds of the Clean Water Act are available through a competitive grant program for implementation of best management practices. Implementation issues related to regulatory concerns (point source discharges, drinking water, etc.) will continue to be addressed through Illinois EPA's State Revolving Loan Funds (SRF). Program success will also be dependent on the commitment of the local people.

The availability of financial assistance from state and federal sources for the implementation of watershed-based plans is limited. While various programs exist which do provide funds for point and nonpoint source pollution abatement, the total costs associated with statewide implementation exceeds the monetary resources currently available from state and federal programs alone. Watershed plans should include strategies having little to no cost, which can be implemented to address water quality issues. Many common sense practices such as changes in management techniques, crop residue management, contouring, reduced application of pesticides and nutrients to lawns and cropland, recycling of used motor oil, as well as others can be applied on a watershed basis without the need for additional funds. A watershed implementation project's success is dependent on the planning committee's ability to incorporate strategies that can be implemented as cost effectively as possible.

Different funding sources have been established, which address specific issues but are not appropriate for all situations. Watershed groups with existing plans, or those taking the initiative to develop Watershed Based Plans, will have the greatest opportunity to utilize various funding sources available. Appendix VV lists major federal funding sources, which may be used to implement Watershed Based Plans.

## **Nonpoint Source Pollution Control Program**

Under Section 319(h) of the Clean Water Act, the Illinois EPA receives federal funds to implement nonpoint source (NPS) pollution control projects in cooperation with local units of government and other organizations. Nonpoint source pollution occurs when precipitation moving over and through the ground picks up pollutants from farms, cities, mined lands and other landscapes and carries these pollutants into rivers, lakes, wetlands and groundwater. Major sources of NPS in Illinois include agriculture, construction erosion, urban runoff, hydrologic modifications and resource extraction activities. The program emphasizes funding for implementing corrective and preventative best management practices (BMPs) on a watershed scale; demonstration of new and innovative BMPs on a non-watershed scale; and the development of information/education NPS pollution control programs.

Congress has appropriated funding annually since 1990. State and local governmental units, citizen and environment groups, individuals and businesses are eligible to receive Section 319(h) funds to carry out approved NPS management projects that implement appropriate NPS pollution control BMPs or enhance the public's awareness of NPS pollution. Examples of funded activities include streambank and shoreline stabilization, wetland restoration, stormwater detention basins, bio-swales, terraces, waterways, sediment basins, nutrient management and education programs such as exhibits, videos, manuals and brochures. Activities required by law or subject to state or federal permit regulations are ineligible. Three projects have been funded in the Rock River basin. They are described below.

**Title:** DeKalb County Streambank and No-Till Program

**Purpose:** This project protected Lake Holiday from sedimentation and other sources of nonpoint source pollution attributed to agricultural runoff. This was accompanied by increasing the number of acres in the watershed that are farmed by no-till. A no-till drill was supplied to farmers at a \$4 per acre charge to encourage the practice and was used on 650 acres. Riprap was installed to stabilize 300 feet of streambank on Samonauk Creek (ILD TB01).

**Project Location:** DeKalb County

**Subgrantee:** DeKalb County Soil & Water Conservation District

**Project Period:** 07/01/94 through 04/30/97

<b>Total Project Cost:</b>	\$17,400.00
<b>Federal:</b>	\$9,900.00
<b>State and Local:</b>	\$7,500.00

### **Project Reports and Other Informational Materials:**

“Samonauk Creek 319 Grant - Final Report.” 1997. Dekalb County Soil & Water Conservation District.

### **BMP Implementation Summary:**

BMP Code	BMP Name	Amount	Estimated Load Reduction		
			Sediment (Tons/Yr.)	Phosphorus (Pounds/Yr.)	Nitrogen (Pounds/Yr.)
329	Conservation Tillage	650 ac.	5,500	?	?
580	Streambank/Shoreline Protection	300 ft.	50	42	84

---

**Title:** Northwest Illinois Livestock Project

**Purpose:** This project involved the implementation of best management practices (BMPs) for milk house waste that are appropriate for northwestern Illinois. The project explained the benefits and limitations for each BMP. Cost share and incentive payments were used to facilitate implementation of new or upgraded milk house waste handling facilities, based on water quality criteria.

**Project Location:** Counties of Carroll, Jo Daviess, Stephenson, and Whiteside

**Subgrantee:** Blackhawk Hills RC&D, Inc.

**Project Period:** 08/15/02 through 12/15/04

**Total Project Cost:** \$215,798.99  
**Federal:** \$141,828.45  
**State and Local:** \$73,970.54

### **Project Reports and Other Informational Materials:**

“Northwest Illinois Livestock Project.” March 2005. Blackhawk Hills RC&D, Inc.

### **BMP Implementation Summary:**

BMP Code	BMP Name	Amount
313	Waste Storage Structures	17 (no.)

---

**Title:** Watershed-based Fecal Coliform Bacteria Source Assessment & Control

**Purpose:** The Illinois EPA has determined that the Rock River and many of its tributaries in Winnebago County do not support designated water uses of swimming and fish consumption. While eliminating the fish consumption advisory will likely require remediation of legacy pollutants originating beyond the boundaries of Winnebago County, the applicant believes that swimming can be restored with aggressive local action. This project aims to build upon Illinois EPA's understanding of the causes of use impairment in the Rock River, identify the sources of pollution, and to remediate those sources thereby restoring water quality and use. This effort has already begun, evidenced by the approved QAPP. Grant funds awarded to the city of Rockford will be used to supplement a project begun in Spring 2003 under a partnership between the Illinois EPA, city of Rockford, Rock River Water Reclamation District, and other communities in Winnebago County. Activities to be supported by Section 319 include 1) experimental design and QAPP Revision, 2) water quality monitoring, 3) data analysis and BMP design, 4) BMP implementation, 5) public education, and 6) partnership cooperation and grant management.

**Project Location:** Winnebago County

**Subgrantee:** City of Rockford, Department of Public Works

**Project Period:** 07/30/04 through 12/31/06

<b>Total Project Cost:</b>	\$164,088.00
<b>Federal:</b>	\$82,044.00
<b>State and Local:</b>	\$82,044.00

The maximum federal funding is 60 percent of the total project cost. The remaining 40 percent is the responsibility of the applicant. This local match can be cash or in-kind services but cannot be federal funds or funds used to match another federal program. 319 grants provide funding on a reimbursement basis and costs must be incurred before the recipient can receive money under the program. Project length is two years unless approved otherwise.

Information on the NPS Pollution Control Program and Section 319 funding, can be obtained from the Nonpoint Source Unit, Watershed Management Section, Bureau of Water at 217/782-3362.

## **Illinois Clean Lakes Program**

The Illinois Clean Lakes Program (ICLP) is a financial assistance grant program that supports lake owners' interest and commitment to long-term, comprehensive lake management and ultimately results in improved water quality and enhanced lake use. Detailed "Phase I" diagnostic/feasibility studies scientifically document the causes, sources and magnitude of lake impairment. Data generated from these monitoring studies are used to recommend lake protection/restoration practices for future implementation. "Phase II" implementation project grants can then be awarded to lake owners to implement Phase I report recommendations.

Through the ICLP, the Illinois EPA provides technical and financial assistance primarily to governmental entities that manage publicly owned lakes with extensive public access and use. Primary objectives of the program are control of pollution sources that affect water quality, restoring lakes that have deteriorated in recreational and ecological quality and protecting high quality lake resources.

State funding for the program is made available under Conservation 2000 legislation signed into law in 1995. Two types of grant awards are authorized under ICLP. Phase I lake study grants are awarded to identify problems and sources of pollution, and to develop a feasible course of corrective action. A typical Phase I study period lasts two years. Phase II implementation grants support the implementation of procedures recommended in the Phase I report to improve water quality, recreational and ecological aspects of the lake. Phase I grants are awarded on a 60 percent state, 40 percent local cost-share basis. Phase II grants are awarded on a 50/50 basis. The Illinois EPA evaluates all applications on three primary factors: an assessment of the lake's overall water quality, its potential for improved water quality and public benefits.

Three lakes in the Rock River basin have utilized ICLP funding. The cost of Phase I and Phase II implementation for Le-Aqua-Na was \$262,918. The cost of Phase I and Phase II implementation for Johnson Sauk Trail Lake was \$131,000. The cost of Phase I and Phase II implementation for Baumann Park Lake was \$257,000.

For further information on the ICLP, contact the Lakes Unit, Surface Water Section, Bureau of Water at 217/782-3362.



## **Priority Lake And Watershed Implementation Program**

The Priority Lake and Watershed Implementation Program (PLWIP) is a program initiative started in July 1997. This program supports lake protection/restoration activities at "priority" lakes where causes and sources of problems are apparent, project sites are highly accessible, project size is relatively small and local entities are in a position to quickly implement needed treatments. Priority lakes are identified by the Illinois EPA in a report entitled "Targeted Watershed Approach - A Data Driven Prioritization" (Document No. IEPA/BOW/97-004). Priority lakes are generally high quality recreational or unique aquatic resources and/or lakes serving multiple uses (i.e., recreation and public water supply) in need of protection/restoration.

Through this grant program, Illinois EPA works cooperatively with managers of publicly owned inland lakes to implement lake protection and restoration activities. Grants are funded up to 100 percent; however, a dollar and/or in-kind service match may receive additional consideration. Project funding can range from approximately \$10,000 - \$45,000. The application deadline is March 1 and grants are awarded by July 1, annually.

Project length is one and a half years. To be eligible for the program, the lake must be publicly owned; the required permits must be obtained by the recipient; quarterly and final reports must be completed by the recipient; the recipient must issue a press release before and after the project; a project sign must be displayed for a minimum of five years; and the project area must be maintained for a minimum of 10 years. Funding is provided in the form of reimbursement. Fundable projects include shoreline erosion control (rip rap and/or bioengineering methods); aerator/destratifier installation; near lake dry dams, filter strips; spillway/dam repair; best management practices in immediate watershed of the lake; macrophyte harvest to address public access/use; dredging to address public access/use; and others.

Only one lake in the Rock River basin has received PLWIP funding. The Sterling Park District received a \$24,000 grant in 2002 for shoreline erosion control work at Sterling Lake in Whiteside County.

For further information on the PLWIP, contact the Lakes Unit, Surface Water Section, Bureau of Water at 217/782-3362.

## **Lake Education Assistance Program**

The Lake Education Assistance Program (LEAP) is part of an education initiative offered by the Illinois EPA. Funding is provided through Conservation 2000, a comprehensive multi-year environmental protection program signed into law in 1995. The program provides funding up to \$500 for school and other not-for-profit organizations for participation in lake or lake watershed related educational field trips and activities. It can also fund the attendance of individuals at lake or lake watershed related seminars and workshops. Projects and activities must have stated goals and involve the enhanced lake or lake watershed education of teachers, students, organizations and/or the community. A one page final report is required, including such things as the level of participant involvement, videos, photographs, artwork and/or written work.

Funding is in the form of reimbursement of costs incurred for activities and supplies such as educational materials, scientific equipment, substitute teacher payment, buses/drivers, seminars, workshops, software and visual materials. Application deadlines are September 30 and January 31, annually. Only one application per school or organization for each application period will be accepted.

Ten organizations in the Rock River basin have received funding under LEAP. They are listed below.

**Table 22. LEAP funding in the Rock River Basin.**

<b>Recipient</b>	<b>County</b>	<b>Amount Awarded</b>
Regional Environmental Center	Winnebago	\$500
Keith Country Day School	Winnebago	\$500
Stephenson Co. Soil and Water	Stephenson	\$500
Boylan Catholic School	Winnebago	\$500
Apple Canyon Lake Association	Jo Daviess	\$500
Boy Scout Troop 44	Stephenson	\$500
McNair Elementary School	Winnebago	\$500
Rock Falls Middle School	Winnebago	\$462
Conservation and Ag Partners	Winnebago	\$500
Lincoln Middle School	Winnebago	\$500

For further information on LEAP, contact the Lakes Unit, Surface Water Section, Bureau of Water at 217/782-3362.

## Water Pollution Control Loan Program

The federal Water Quality Act (Clean Water Act amendments) of 1987 changed the way in which federal assistance for public wastewater projects would be provided. The legislation authorized federal grants to state governments for establishment of loan programs, with the condition that each state provide a 20 percent match to each federal dollar appropriated for the program. Since the inception of the Water Pollution Control Loan Program (WPCLP), more than \$1.3 billion in federal capitalization, state matching funds and loan repayments have been committed to fund eligible loan projects. To provide additional funding, the Agency has decided to convert from a direct loan program to a leveraged loan program through the sale of revenue bonds.

Local government units (city, village or sanitary district) with the following types of projects are eligible to receive a loan: (1) construction of new wastewater collection and treatment facilities, or upgrading and expanding of existing facilities; (2) replacement, rehabilitation or extension of collection systems and interceptors; and (3) separation of combined sewers or upgrading combined systems to eliminate overflows, surcharging or flooding. All wastewater loans will carry a loan rate, which is established at one-half the market interest rate. The simple interest rate for loans has averaged approximately 3 percent. The maximum term of a WPCLP loan will be 20 years. Table 23 shows the communities in the Rock River basin that have received loans since 1998.

**Table 23. Water Pollution Control Loan Program Loans in the Rock River Basin.**

<b>Community</b>	<b>Loan #</b>	<b>Year</b>	<b>Amount</b>
Amboy	L171055	FY98	\$663,433
Dakota	L172032	FY03	\$299,500
Dixon	L171416	FY00	\$18,267,845
Hampshire	L171711	FY02	\$3,993,045
Galena	L171386	FY01	\$11,629,121
Lena	L170278	FY98	\$2,711,000
Orangeville	L170976	FY00	\$1,645,794
Oregon	L170337	FY01	\$4,403,521
Orion	L171198	FY00	\$1,128,178
Orion	L171054	FY01	\$3,063,022
Polo	L170143	FY99	\$472,996
Rock Falls	L171120	FY98	\$1,150,797
Rock River WRD	L171386	FY00	\$7,000,000
Rock River WRD	L171386	FY01	\$8,139,245
Tampico	L171163	FY98	\$126,752

For further information on the WPCLP, please contact the Infrastructure Financial Assistance Section, Bureau of Water, at 217/782-2027, TDD 217/782-9143.

## Public Water Supply Loan Program

The federal Safe Drinking Water Act Reauthorization was signed into law in early August 1996. Section 130 of this legislation authorizes federal grants to states for establishment of loan programs, with the condition that each state provide a 20 percent match to each federal dollar appropriated for the program. Funding from 1997 through 2003 is authorized at \$1 billion annually, which translates to approximately \$30 million to \$40 million annually for Illinois. To provide additional funding, the Agency has decided to convert from a direct loan program to a leveraged loan program through the sale of revenue bonds.

Local government units (cities, villages and water districts) and certain classes of privately-owned community water supplies are eligible to receive a drinking water loan for the following types of projects: (1) upgrade or replacement of existing facilities to bring them into compliance with the requirements of the Safe Drinking Water Act and the Illinois Environmental Protection Act; (2) construction of a new distribution and/or treatment system to replace individual wells; and (3) renovation of treatment and/or distribution facilities that have reached the end of their useful life, or have inadequate capacity to meet service area needs. Under the loan priority scoring system, projects necessary for compliance with the Safe Drinking Water Act and/or the Environmental Protection Act will receive the highest priorities for funding. Federal program requirements specifically prohibit funding for construction or rehabilitation of reservoirs and for projects primarily for future growth or fire protection. All drinking water loans will carry a loan rate that is established at one-half the market interest rate. The simple interest rate for loans has averaged approximately 3 percent. The maximum term of a Public Water Supply Loan Program (PWSLP) loan will be 20 years, with funding for a project in any one fiscal year limited to 25 percent of available funds. Table 24 shows the communities in the Rock River basin that have received Public Water Supply loans.

**Table 24. Public Water Supply Loans in the Rock River Basin.**

<b>Community</b>	<b>Loan #</b>	<b>Year</b>	<b>Amount</b>
DeKalb	L171337	FY99	\$4,221,355
Kewanee	L171604	FY03	\$8,424,000
Lanark	L171395	FY98	\$170,000
Maple Park	L171438	FY02	\$897,058
Rock Falls	L171390	FY00	\$1,635,950
Sycamore	L172473	FY03	\$780,495
Walnut	L172217	FY03	\$627,210

For further information on the PWSLP, please contact the Infrastructure Financial Assistance Section, Bureau of Water at 217/782-2027, TDD 217/782-9143.

## **Agricultural Cost Share Programs and Administrative Acts**

This section presents information concerning programs that provide technical and financial assistance and encourage land stewardship. Many, if not all, of these programs have been utilized in the Rock River basin.

### **Environmental Quality Incentives Program (EQIP)**

Under EQIP, technical assistance, cost share, incentive payments and educational help are provided to farm operators who enter into five to 10 year contracts with USDA. EQIP replaces and combines the functions of previous USDA programs. This program provides assistance both within and outside designated priority areas, with half of the resources targeted to livestock-related natural resource concerns and the remainder set aside for other significant conservation priorities.

The Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA), both part of the USDA, administer EQIP. Participants, in cooperation with the local soil and water conservation district, develop a conservation plan for the farm that serves as the basis for the EQIP contract. The Commodity Credit Corporation (CCC) provides cost-share or incentive payments to apply the conservation practices and land use conversions within a specified timeframe. Eligibility requires that the participant:

1. be in compliance with highly erodible land and wetlands conservation provisions;
2. have control of the land for the term of the contract;
3. submit an acceptable farm conservation plan to NRCS, approved by the SWCD, and in compliance with the terms and conditions of the program and;
4. supply information as required by CCC to determine eligibility for the program.

Public or private land can be enrolled in EQIP, including cropland, pasture, forestland and other land on which crops or livestock are produced, including land the NRCS has determined poses a serious threat to soil, water or related natural resources.

EQIP provides cost-sharing up to 75 percent for certain conservation practices, such as grassed waterways, filter strips and other practices important to improving and maintaining the health of natural resources in the area. Total EQIP cost-share and incentive payments are limited to \$10,000 per person per year and \$50,000 for the length of the contract.

### **Wetland Reserve Program (WRP)**

This voluntary program helps landowners protect, restore and enhance wetlands on private property. It provides an opportunity for landowners to receive financial incentives to restore wetlands in exchange for retiring marginal agricultural land. The

NRCS administers the program in consultation with the FSA and other agencies. Funding for WRP comes from the CCC.

The landowner and NRCS jointly develop a plan for the restoration and maintenance of the wetland. The WRP offers landowners three options: permanent easements, 30-year easements and restoration cost-share agreements of a minimum 10-year duration.

- **Permanent Easement.** This is a conservation easement in perpetuity. Easement payment will be the lesser of: the agricultural value of the land, an established payment cap, or an amount offered by the landowner. In addition to paying for the easement, USDA pays 100 percent of the costs of restoring the wetland.
- **30-Year Easement.** This is a conservation easement lasting 30 years. Easement payments are 75 percent of what would be paid for a permanent easement. USDA also pays 75 percent of restoration costs.
- **Restoration Cost-Share Agreement.** This is an agreement (generally for a minimum of 10 years in duration) to re-establish degraded or lost wetland habitat. USDA pays 75 percent of the cost of the restoration activity. This does not place an easement on the property. The landowner provides the restoration site without reimbursement.

Since 1994, Illinois has enrolled over 32,000 acres in WRP. The program's successes have created enormous landowner interest. Illinois has a backlog of eligible applicants for this program. Landowners have expressed various reasons for their interest in the program, but most landowners appreciate the program providing financial compensation for removing their high-risk acreage from agriculture production. WRP funds are subsequently used to reduce debt or invest in more productive land.

### **Small Watershed Program**

The Watershed Protection and Flood Prevention Program, also known as the Small Watershed Program, or PL 566 Program, provides technical and financial assistance to address resource and related economic problems on a watershed basis. This program is administered by the NRCS. Projects related to watershed protection, flood prevention, water supply, water quality, erosion and sediment control, wetland creation and restoration, fish and wildlife habitat enhancement and public recreation are eligible for assistance. Technical and financial assistance is also available for planning and installation of works of improvement to protect, develop and use land and water resources in small watersheds.

Eligibility for assistance extends to any local or state agency, county, municipality, town or township, SWCD, flood prevention/flood control district or other unit of government with the authority and capacity to carry out, operate and maintain installed works of improvement. Projects are limited to watersheds smaller than 250,000 acres

This program provides technical assistance and cost sharing (amount varies) for implementation of NRCS-authorized watershed plans, including technical assistance on

watershed surveys and planning. Although projects vary significantly in scope and complexity, typical projects entail \$3.5 million to \$5 million in federal financial assistance. Funding nationally for this program has decreased in recent years, and about \$100 million annually is currently appropriated, of which about \$50 million is available for financial assistance.

### **Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP)**

These programs are a state-federal partnership that targets specific water quality, soil erosion and wildlife habitat issues related to agriculture. Financial incentives encourage farmers to voluntarily enroll in contracts of 10 to 15 years in duration to remove highly erodible lands from agricultural production.

Enrollment in CRP is voluntary. Participants receive an annual rental payment and half the costs of establishing a conserving land cover in exchange for retiring highly erodible and/or environmentally sensitive land. Approximately 65 percent of cultivated cropland in the United States is eligible for this program (USDA ERS 1997). Limited opportunities now remain for new acreage to be enrolled in the CRP, with relatively little program acreage expiring though 2002. In addition to the regular, periodic CRP signups, USDA conducts a continuous signup of acreage dedicated to specific conservation practices, such as filter strips, riparian buffers, grassed waterways, field windbreaks, shelter belts, living snow fences, shallow water areas for wildlife and well-head protection areas. These practices involve relatively small parcels of land, but are expected to provide disproportionate environmental benefits. Under the continuous signup, if land is suitable for the above practices and the landowner agrees to the annual payment rate, which is based on soil type, the offer is considered immediately accepted under the continuous signup for contracts of up to 15 years. In addition to the annual payment, the USDA may offer additional financial incentives of up to 20 percent for certain continuous sign-up practices.

USDA announced new incentives for participants in continuous signup including a one-time "signing bonus," additional cost-share assistance and new payment rates for marginal pasturelands. CREP is essentially an enhanced version of the CRP. In Illinois, CREP targets the Illinois River watershed. This is outside our area of concern and therefore the program is not applicable (NRCS 1998).

### **Agricultural Areas Conservation and Protection Act (505 ILCS 5/)**

It is the policy of the State of Illinois to conserve, protect and to encourage the development and improvement of its agricultural lands for the production of food and other agricultural products. It is also the policy of this state to conserve and protect agricultural lands as valued natural and ecological resources that provide needed open spaces for clean air sheds as well as for aesthetic purposes. To help meet these policies, the Agricultural Areas Conservation and Protection Act (505 ILCS 5/) was enacted.

Under this Act, any owner or owners of land may submit a proposal to their county board for the creation of an agricultural area within their county. According to the Act, no land shall be included in an agricultural area without the consent of the owner and no land with an agricultural area shall be used for other than agricultural production as described in the Act. It is defined that an agricultural area, when created, shall not be less than 350 acres in all counties with a population under 600,000 and not less than 100 acres in all counties with a population of 600,000 or more. An area created under this Act shall be established for a period of ten years. The Act does allow local counties to approve requests to add or subtract acreage from these areas.

Copies of the Illinois Department of Agriculture's *Agricultural Areas Annual Reports* and the Agricultural Areas Conservation and Protection Act can be found at [www.agr.state.il.us/Environment/LandWater](http://www.agr.state.il.us/Environment/LandWater).

The *Agricultural Areas 2005 Annual Report* (Illinois Department of Agriculture – December 30, 2005) identifies a total of 56 agricultural areas in 23 counties throughout Illinois. Table 25 lists the six counties that contain a portion of, or are located within, the Rock River basin that have at least one Agricultural Area. Sixteen of the 56 agricultural areas are completely within these six counties. For a map of the specific location of agricultural areas contact the local county board.

**Table 25. Agricultural Areas in the Counties that contain a portion of, or are completely within the Rock River Basin.**

<b>County</b>	<b>Areas</b>	<b>Acres in Each Area</b>	<b>Total Acres</b>
Boone	2	2,520, 4,743	7,263
Bureau	2	1,962, 1,969	3,931
DeKalb	1	710	710
Kane	1	600	600
McHenry	9	2,518, 795, 2,078, 892, 6,782, 802, 4,466, 2,048, 415	20,796
Ogle	1	429	429
Total	16		33,729



## Conservation 2000

Conservation 2000 is state program. It is a multi-million dollar initiative designed to take a broad-based, long-term ecosystem approach to conserving, restoring, and managing Illinois' natural lands, soils and water resources. It currently expires in 2009.

The Conservation 2000 Program funds nine programs across three state agencies:

- Illinois Department of Natural Resources
  - Ecosystems Program
  - Review of Illinois Water Law
  - Ecosystem Monitoring Program
  - Natural Resources Information Network
- Illinois Environmental Protection Agency
  - Illinois Clean Lakes Program
- Illinois Department of Agriculture
  - Conservation Practices Cost-Share Program
  - Sustainable Agriculture Grants Program
  - SWCD Program Development
  - Expansion Grants
  - Streambank Stabilization and Restoration Program

Several of these are watershed conservation efforts. They are discussed below.

The Illinois Clean Lakes Program and Ecosystems Program were discussed earlier.

The Sustainable Agriculture Grants Program funds sustainable agriculture research, education and demonstration through conferences, training, on-farm research and educational outreach. Sustainable agriculture is a system of farming designed to balance environmental and economic concerns. Practices are aimed at maintaining producers' profitability while conserving soil, protecting water resources and controlling pests through means that are not harmful to natural systems, farmers or consumers. Organizations and individuals may apply for sustainable agriculture grants provided they can demonstrate an understanding of sustainable agriculture systems and the ability to complete the project in a timely and professional manner.

The Conservation Practices Cost-Share Program subsidizes landowner implementation of conservation practices, such as terraces, filter strips and grass waterways that are aimed at reducing soil loss on cropland. To qualify for the program, land upon which the owner plans to install a conservation practice must be experiencing erosion at rates greater than one and one-half times the tolerable soil loss level. Landowners must cooperate with their SWCD, including developing a conservation plan. The SWCD sets maximum cost-share rates for each approved practice, up to a maximum of 60 percent. Maximum cost-share payments may also be established for each project. Cost-share payments are based on locally established average costs for similar conservation

practices. Conservation practices selected for cost-share assistance include those listed below.

- Contour farming establishment
- Contour stripcropping or contour buffer strip establishment
- Cover and green manure crops
- Critical area planting
- Diversion
- Field border strips
- Filter strips
- Grade stabilization structures
- Grassed waterway
- No-till planting systems
- Pasture and hayfield planting
- Terraces
- Water and sediment control basins

Recipients of cost-share monies must agree to continue or maintain structural conservation practices and possibly some management practices for at least 10 years. Table 26 lists the Conservation Practices cost share funds by county for all of the counties that contain a portion of, or are completely within, the Rock River basin. Due to data base incompatibility, information pertaining to the number of projects and units of projects installed is not available. For actual units of conservation practices installed within the watershed, contact the local soil and water conservation district.

**Table 26. Conservation Practices Funds spent in the Counties that contain a portion of, or are completely within the Rock River Basin.**

<b>County</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>
Boone	\$15,379.85	\$6,231.00	\$9,500.00
Bureau	\$24,247.69	\$33,309.00	\$51,474.00
Carroll	\$44,921.00	\$45,161.00	\$42,661.00
DeKalb	\$45,528.31	\$88,096.44	\$57,352.00
Henry	\$87,578.00	\$94,647.13	\$120,535.00
JoDaviess	\$51,176.00	\$73,466.91	\$76,098.00
Kane-DuPage	\$2,925.00	\$4,653.00	\$3,000.00
Lee	\$18,324.00	\$33,835.48	\$32,768.00
McHenry	\$4,921.02	\$2,059.20	\$15,537.00
Ogle	\$105,973.31	\$141,406.40	\$103,437.00
Rock Island	\$31,110.27	\$50,217.00	\$40,001.00
Stephenson	\$34,895.20	\$29,174.00	\$52,517.00
Whiteside	\$90,845.00	\$102,395.55	\$96,920.00
Winnebago	\$14,602.42	\$36,705.97	\$32,281.00

The Streambank Stabilization and Restoration Program is designed to demonstrate effective, inexpensive vegetative and bio-engineering techniques for limiting streambank erosion. Program monies fund demonstration projects at suitable locations statewide and provide cost-share assistance to landowners with severely eroding streambanks. Both cost-share assistance and demonstration project funding are available under this program. Eligibility for participating in this program includes a requirement that sites meet assessment and selection criteria established for successful streambank stabilization using vegetative or other bioengineering techniques. Proposals must be sponsored by the local SWCD and recipients must agree to maintain streambank stabilization practices for at least 10 years.

Table 27 lists the Streambank Stabilization and Restoration Program cost share funds by county for all of the counties that contain a portion of, or are completely within, the Rock River basin. Due to data base incompatibility, information pertaining to the number of projects and units of projects installed is not available. For actual units of streambank stabilization installed within the watershed, contact the local soil and water conservation district.

**Table 27. Streambank Stabilization and Restoration Program Funds spent in the Counties that contain a portion of, or are completely within the Rock River Basin.**

<b>County</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>
Boone	\$10,000.00	\$0.00	\$0.00
Bureau	\$0.00	\$27,468.00	\$9,875.00
Carroll	\$29,683.00	\$14,729.00	\$20,940.00
DeKalb	\$14,917.00	\$0.00	\$10,788.00
Henry	\$0.00	\$0.00	\$0.00
JoDaviess	\$50,654.00	\$200,503.00	\$57,005.00
Kane-DuPage	\$10,000.00	\$3,750.00	\$33,375.00
Lee	\$19,349.00	\$34,310.00	\$32,511.00
McHenry	\$0.00	\$10,000.00	\$5,649.00
Ogle	\$0.00	\$0.00	\$11,250.00
Rock Island	\$27,166.00	\$8,438.00	\$5,158.00
Stephenson	\$19,152.00	\$0.00	\$4,417.00
Whiteside	\$3,150.00	\$4,894.00	\$14,400.00
Winnebago	\$8,849.00	\$0.00	\$4,688.00

The Soil and Water Conservation District Grants Program provides assistance to Illinois' SWCDs to help offset operating expenses.

### **303(d)/TMDL Program**

Section 303(d) of the federal Clean Water Act requires states to identify waters that do not meet applicable water quality standards or do not fully support their designated uses. States are required to submit a prioritized list of impaired waters, known as the 303(d) List, to the U.S. Environmental Protection Agency for review and approval. Those waterbodies in the Rock River basin currently on the 303(d) list are shown in Appendix P.

The CWA also requires that a Total Maximum Daily Load (TMDL) be developed for each pollutant of an impaired water body. The establishment of a Total Maximum Daily Load sets the pollutant reduction goal necessary to improve impaired waters. It determines the load, or quantity, of any given pollutant that can be allowed in a particular water body. A TMDL must consider all potential sources of pollutants, whether point or nonpoint. It also takes into account a margin of safety, which reflects scientific uncertainty, as well as the effects of seasonal variation.

After the reduced pollutant loads have been determined, an implementation plan is developed for the watershed spelling out the actions necessary to achieve the goals. The plan specifies limits for point source discharges and recommends best management practices (BMPs) for nonpoint sources. It also estimates associated costs and lays out a schedule for implementation. Commitment to the implementation plan by the citizens who live and work in the watershed is essential to success in reducing the pollutant loads and improving water quality.

No TMDLs have yet been developed or are currently in development for any impaired waterbodies in the Rock River basin. However, current USEPA guidance requires that TMDLs be established for all impaired waters within eight to 13 years of being placed on the 303(d) List; with all TMDLs being completed by 2018.

For more information regarding TMDLs, contact the Planning Unit of the Watershed Management Section, Bureau of Water at 217/782-0610.

## **Regional Groundwater Protection Planning Program**

Section 17.2 of the IGPA requires the Illinois EPA to establish a regional groundwater protection and planning program. The Illinois EPA utilized recharge area mapping (completed by the Department of Energy and Natural Resources), groundwater pumpage data, population affected, water supply characteristics, solid waste planning efforts and other factors to select the four existing priority groundwater protection planning regions. A committee is appointed for each region by the Illinois EPA director and includes a cross-section of representatives from the region, including: county and municipal officials; owners or operators of public water supplies which use groundwater; at least three members of the general public who have an interest in groundwater protection; and the Agency and other state agencies as appropriate.

The Illinois EPA continues to coordinate with the regional groundwater protection planning committees to implement programs and assist with targeting local contacts and interest groups. Each regional committee has adopted specific mission goals and objective statements to advocate groundwater protection practices and procedures to municipal, county, state and other local units of government throughout their respective regions. These goals and objectives are useful in the prioritization and development of local groundwater protection programs, many of which are described in this chapter.

Although each region has specific priorities and areas of concern, their mission statements all have common goals and objectives as described below:

1. provide education materials and programs regarding general groundwater protection;
2. promote the use of groundwater protection tools to county and other local units of government that implement groundwater protection programs throughout the region;
3. assist the state jurisdictions in accomplishing specific regional groundwater protection programs; and
4. provide a forum for the development of recommendations that address committee-recognized regional protection needs.

### **Northern Groundwater Protection Planning Region (Winnebago, Boone, and Mc Henry counties)**

A portion of the Northern Groundwater Protection Planning Committee is located within the Rock River basin. The Illinois EPA Director designates the members of the committee. The chairperson and contact information is:

Robyn Doescher  
Baxter & Woodman  
8678 Ridgefield Road  
Crystal Lake, IL 60012-2797  
815/459-1260 FAX: 815/455-0450  
[rdoescher@baxterwoodman.com](mailto:rdoescher@baxterwoodman.com)

The committee has been focusing on the following activities:

*Loves Park Public Water District (PWD)*- For the third consecutive summer, the city of Loves Park and the Northern Committee collaborated on a well-sealing program for residents in the five-year capture zone for Loves Park PWD Well #1. An intern went door-to-door helping residents determine whether they had an abandoned well on their premises. Over 330 homes were visited, with 91 abandoned driven point wells identified. A private well contractor and the Winnebago County Health Department sealed these 91 driven point wells using materials available from the reduced-cost bentonite program developed through the Northern Committee. Over 180 abandoned wells have been properly sealed since the program began in 2002. Additional wells were closed in Winnebago, Boone and McHenry counties for 11 private individuals through the same reduced-cost bentonite program. The Loves Park Drinking Water Protection Program aids in educating residents about groundwater. Word of mouth and positive media attention have helped the well sealing program gain respect and recognition throughout the community.

*North Caledonia* – The Northern Committee has provided groundwater protection/management information to a group of concerned citizens representing the village of North Caledonia. This citizen group has concerns regarding the rapid rate of development and the potential impacts this may have on groundwater resources, wastewater/septic system loading and storm water management issues. Representatives of this citizen group have attended several of the Northern Committee meetings to express their concerns and lack of authority to address many of these potential environmental impact issues. To date, the Northern Committee has responded to several questions and provided technical assistance to this citizen group on general groundwater issues concerning new development, maintenance of private wells, and regulations related to becoming a public water supply. In addition, the Illinois Rural Water Association (IRWA) Source Water Protection Specialist has offered to assist the residents of North Caledonia.

Members of the Northern Committee and IRWA Source Water Protection Specialist have met with officials from the Winnebago County Planning and Zoning Department to encourage them to incorporate public water supply well location information as a layer in their new GIS mapping program at the county level. Additional well-specific information (i.e., minimum/maximum setback zones, CWS five-year capture zone delineations) can also be provided to the county zoning department to increase their awareness of this vital resource. This information can then be generated electronically, to assist in emergency response procedures and current/future land-use planning decisions that may impact groundwater quality or quantity. In addition, IRWA's Source Water Protection Specialist assisted each CWS in the county in developing Source Water Protection Contingency Plans For Emergency Preparedness and informed them of the overall Winnebago County Source Water Protection Program. As a result, each CWS received a copy of this document, which includes emergency contacts, phone numbers and resource materials available to each PWS in Winnebago County.

## **Northeastern Groundwater Protection Planning Region (Kane, Kendall, DuPage, Will, and Kankakee counties)**

A portion of the Northeastern Groundwater Protection Planning Committee in Kane County falls within the Rock River basin. The Director of Illinois EPA also designates the members of Northeastern Groundwater Protection Planning Committee. The chairperson and contact information is:

Dan Horvath  
Resource Consulting, Inc.  
P.O. Box 123  
Geneva, IL 60134  
(630) 232-9820; Fax: (630) 232-9824  
[dhorvath@resourceillinois.com](mailto:dhorvath@resourceillinois.com)

Activities of the committee in the Rock River basin include the Kane County Water Resources Study as described below.

*Kane County Water Resources Study* - The Kane County Water Resources Department was created in February 2000, probably the first of its kind in the state. The Water Resources Department was assigned the role of county water planner and charged with providing technical assistance on stormwater management planning. In the summer of 2001, the county solicited proposals for a comprehensive study of the geology, hydrology and water management needs for the county. The five-year study, now underway, will provide: improved resource maps; a thorough review of both groundwater and surface water resources, and actions by municipalities and the county to better manage the limited water supply. The ISGS and ISWS are conducting most of the research work, leading to a model of water sources and usages. Groundwater recharge areas will also be delineated. The county and local governments will then review options and strategies for balanced water management. Some options will probably relate to land management such as farmland protection or the purchase of development rights to protect recharge areas. At the Spring 2002 Making It Work Conference, "Don't Let the Tap Run Dry," a number of speakers spoke to about 150 municipal officials on water resource concerns addressed by the study and management options. The study will integrate shallow bedrock studies done in the late 1980s for the proposed Fermi Lab expansion with new work which will help define the deep bedrock aquifers, their recharge areas, and their sustainable yields. Members of the Northeastern Committee and Kane County communities are actively participating in the study.

## **Wellhead and Source Water Protection Programs**

The Illinois EPA has implemented a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies. The 1996 amendments to the federal Safe Drinking Water Act established several programs that will help water suppliers continue to provide safe, adequate and affordable water to their customers. As required by these amendments, the Illinois EPA, in cooperation with water utilities and other stakeholders, has developed and the United States Environmental Protection Agency has approved, Illinois' SWAP. The purpose of SWAP is to:

- identify areas that supply drinking water to the public,
- inventory potential sources of contamination,
- determine the susceptibility of the source water to contamination and
- inform the public of the assessment results

The Source Water Assessment Program, implemented by Illinois EPA, can help communities in the Rock River basin make important decisions about how to protect their drinking water. By working to ensure safe drinking water supplies, the health and economy of the community, as well as the preservation of natural resources, will be greatly improved. In addition, investment in drinking water treatment will be sustained for a longer time period.

Summary versions of the Source Water Assessments are available at the following Internet site: <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>. For Public Water Supplies, this summary information describes pertinent sub-sections of each completed assessment including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts. It should be noted that these Source Water Assessment summaries are presented in strict compliance with Illinois EPA's security policy on the release of sensitive information. Therefore, all locational data and maps pertaining to wells, aquifers and/or surface water intakes have been removed.

The Illinois EPA continues to encourage local Well Head Protection Area (WHPA) management through the incentives provided by the SDWA vulnerability waiver program. Under the Well Head Protection Program, a WHPA is defined and the potential sources of groundwater contamination are inventoried within this area. Following these steps, local stakeholders are involved in developing and implementing WHPA management plans to help reduce the vulnerability of wells to contamination. The degree of vulnerability is related to the intrinsic susceptibility of the aquifer. Wells using a confined aquifer benefit from natural geologic protection, whereas wells in unconfined aquifers have a greater risk of contamination. Therefore, WHPA management strategies that are implemented to reduce the vulnerability for CWSs using unconfined aquifers need to be more rigorous than those implemented for CWSs using confined aquifers. Thus, Illinois EPA breaks out management strategies being implemented accordingly. This is also referred to as a differential protection strategy.



Groundwater modeling is used to delineate the WHPA/contributing recharge area for CWSs using unconfined aquifers. These delineated areas represent groundwater with some of the highest use, value and vulnerability in the state.

WHP management strategies have been implemented for the following CWSs using unconfined aquifer systems in the Rock River basin:

**Winnebago County** (Winnebago County Planning and Zoning Department engaged in groundwater resource protection (Groundwater Coordinator))

- Loves Park
- North Park PWD
- Rockton
- Pecatonica
- Winnebago
- Rockford

Boone County

- North Caledonia

McHenry County (Comprehensive County-Wide Groundwater Resources Management Plan)

- Marengo (comprehensive WHPA overlay zoning ordinance)
- Lake In the Hills (comprehensive WHPA overlay zoning ordinance)
- Crystal Lake
- Cary
- Woodstock
- Fox River Grove (comprehensive WHPA overlay zoning ordinance)

Kane County (Developing a Comprehensive Water Resources Management Plan)

For further detail please refer to *Illinois Groundwater Protection Program Comprehensive Status and Self-Assessment Report* at:

<http://www.epa.state.il.us/water/groundwater/index.html>

Additionally, 125 of 362 public water systems have also implemented WHP management strategies under a special exception permit (SEP) process. SEPs are issued to these systems to reduce the frequency of compliance monitoring required under the SDWA. The SEP requires the implementation of WHP management. Many of these systems are using confined aquifers. Appendix WW lists the CWSs in the basin that have SEPs issued.

## Groundwater Restricted Use Ordinances

Groundwater zoning ordinances are an effective means of controlling the location and performance of land uses that threaten groundwater resources. Local governmental bodies can enact comprehensive overlay groundwater protection zoning ordinances to protect their community water supply wells. These ordinances can prohibit a use that is hazardous to groundwater, make a land use conditional due to potential adverse effects, delineate areas particularly susceptible to groundwater contamination as special management areas and limit development intensity to protect groundwater. Additional design and operating standards for potentially contaminating land uses within the recharge areas of community wells may be implemented. This additional protection enacts proactive management activities inside well recharge areas and considers impacts from potential point and nonpoint sources (such as agricultural land uses) of groundwater contamination.

There are 16 communities within the Rock River basin that have passed Groundwater Restricted Use Ordinances for all or part of their municipal boundaries (Appendix XX). These ordinances restrict the drilling of new potable water wells within specified areas. Table 28 is a listing of the communities and the date that the groundwater ordinance went into effect.

More information on these ordinances may be obtained from the Illinois EPA Internet GIS map server located at [www.epa.state.il.us/water/groundwater/source-water-assessment/](http://www.epa.state.il.us/water/groundwater/source-water-assessment/)

**Table 28. Groundwater Restricted Use Ordinances in the Rock River Basin.**

<b>Name</b>	<b>Ordinance Date</b>
Carbon Cliff	11/17/2004
Freeport	8/10/2004
Prophetstown	6/13/2001
East Moline	3/1/1999
Moline	2/1/1999
De Kalb	11/25/2002
Marengo	6/19/1998
Rock Island	11/4/2002
Harvard	12/31/2003
Rockford	9/2/2004
Silvis	2/19/2004
South Beloit	8/15/2005
Sycamore	7/6/2001
Rochelle	1/21/2000
Geneseo	5/13/2005
Atkinson	3/7/2005

## NEXT STEPS

As envisioned in *A Framework For A Basinwide Planning And Protection Pilot*, the river basin assessment is intended to be a first step in the watershed planning process. By providing information about the area's water resources, such as which waters are impaired as well as causes and sources of impairments, it is intended to enable local stakeholders to work together to come up with local solutions to water quality problems.

After review and incorporation of comments from the B-MAG and other outside agencies, the basin assessment will be used to help local units of governments develop watershed plans at the 52 watershed level (8-digit USGS Hydrologic Unit) or finer scale where appropriate. In the development of local watershed plans, stakeholders will focus on the problems and protections available in their watershed and develop strategies to bridge the gaps between the protections that are currently in place and additional protections needed to achieve water quality goals. These local watershed plans will be reviewed and approved by Illinois EPA. It will be the responsibility of local governments to adopt the plan recommendations and implement them. The Rock River Basin Assessment helps to lay the groundwork upon which those recommendations will be based.

## LITERATURE CITED

- Berg, R.C., J.P. Kempton, and A.N. Stecyk. 1984. *Geology for planning in Boone and Winnebago Counties*: Illinois State Geological Survey, Circular 531, 69p.
- Consensus Solutions Inc. 2004. *A Framework For A Basinwide Planning And Protection Pilot*. Atlanta, Georgia.
- Goetsch, W.D., T. J. Bicki and D.P. McKenna. 1992. *Statewide Survey for Agricultural Chemicals in Rural, Private Water-Supply Wells in Illinois*. Illinois Department of Agriculture, Springfield, IL, 4 p.
- Horberg, L. 1950. *Bedrock Topography of Illinois*: Illinois State Geological Survey, Bulletin 73, 111p.
- Illinois Department of Agriculture. 2000. *Illinois Generic Management Plan For Pesticides In Groundwater*. Springfield, IL.,39 p.
- Illinois Department of Agriculture. 2005. *Illinois T by 2000 Cropland Soil Loss Transects, 2004*. Bureau of Land and Water Resources. Springfield, IL
- Illinois Department of Natural Resources. 1996. *Land Cover of Illinois 1991-1995*. Illinois Natural History Survey, Illinois State Geological Survey, Critical Trends Assessment Program.
- Illinois Department of Natural Resources. 1998. *Kishwaukee River Area Assessment, Volume 1, Geology*. Office of Scientific Research and Analysis. State Geological Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Kishwaukee River Area Assessment, Volume 2, Water Resources*. Office of Scientific Research and Analysis. Illinois State Water Survey. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Kishwaukee River Area Assessment, Volume 3, Living Resources*. Office of Scientific Research and Analysis. Natural History Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Kishwaukee River Area Assessment, Volume 4. Socio-Economic Profile, Environment Quality, Archaeological Resources*. Office of Realty and Environmental Planning, Division of Review and Coordination; Office of Scientific Research and Analysis. Illinois State Water Survey and Illinois State Museum, Critical Trends Assessment Program. Champaign, Illinois.

- Illinois Department of Natural Resources. 1998. *Lower Rock River Area Assessment, Volume 1, Geology*. Office of Scientific Research and Analysis. State Geological Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Lower Rock River Area Assessment, Volume 2, Water Resources*. Office of Scientific Research and Analysis. Illinois State Water Survey. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Lower Rock River Area Assessment, Volume 3, Living Resources*. Office of Scientific Research and Analysis. Natural History Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Lower Rock River Area Assessment, Volume 4. Socio-Economic Profile, Environment Quality, Archaeological Resources*. Office of Realty and Environmental Planning, Division of Review and Coordination; Office of Scientific Research and Analysis. Illinois State Water Survey and Illinois State Museum, Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Sugar-Pecatonica River Area Assessment, Volume 1, Geology*. Office of Scientific Research and Analysis. State Geological Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Sugar-Pecatonica River Area Assessment, Volume 2, Water Resources*. Office of Scientific Research and Analysis. Illinois State Water Survey. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Sugar-Pecatonica River Area Assessment, Volume 3, Living Resources*. Office of Scientific Research and Analysis. Natural History Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 1998. *Sugar-Pecatonica River Area Assessment, Volume 4. Socio-Economic Profile, Environment Quality, Archaeological Resources*. Office of Realty and Environmental Planning, Division of Review and Coordination; Office of Scientific Research and Analysis. Illinois State Water Survey and Illinois State Museum, Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 2002. *Upper Rock River Area Assessment, Volume 1, Geology*. Office of Scientific Research and Analysis. State Geological Survey Division. Critical Trends Assessment Program. Champaign, Illinois.

- Illinois Department of Natural Resources. 2002. *Upper Rock River Area Assessment, Volume 2, Water Resources*. Office of Scientific Research and Analysis. Illinois State Water Survey. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 2002. *Upper Rock River Area Assessment, Volume 3, Living Resources*. Office of Scientific Research and Analysis. Natural History Survey Division. Critical Trends Assessment Program. Champaign, Illinois.
- Illinois Department of Natural Resources. 2002. *Upper Rock River Area Assessment, Volume 4. Socio-Economic Profile, Environment Quality, Archaeological Resources*. Office of Realty and Environmental Planning, Division of Review and Coordination; Office of Scientific Research and Analysis. Illinois State Water Survey and Illinois State Museum, Critical Trends Assessment Program. Champaign, Illinois.
- Illinois EPA. 1994. *Quality Assurance Project Plan*. Bureau of Water, Division of Water Pollution Control. Springfield, IL
- Illinois EPA. 2002. *Water Monitoring Strategy 2002-2006*. IEPA/BOW/02-005. Bureau of Water, Division of Water Pollution Control: Springfield, IL
- Illinois EPA. 2004. *Illinois Water Quality Report 2004*. IEPA/BOW/04-006. Bureau of Water, Division of Water Pollution Control: Springfield, IL
- Illinois EPA. 2004. *Illinois 2004 Section 303(d) List*. IEPA/BOW/04-005. Bureau of Water, Watershed Management Section: Springfield, IL
- Illinois EPA. 2004. *Targeted Watershed Approach - A Data Driven Prioritization*. IEPA/BOW/97-004 Bureau of Water. Springfield, IL
- Keefer, D.A. 1995. *Potential for agricultural chemical contamination of aquifers in Illinois: 1995 Revision*. Illinois State Geological Survey, Environmental Geology 148, 28 p.
- Killey, M.M. 1998. *Illinois' Ice Age Legacy*. Illinois State Geological Survey, GeoScience Education Series 14, 66p.
- O'Hearn, M. and S. Schock. 1984. *The design of a statewide groundwater monitoring network in Illinois*. Illinois State Water Survey Contract Report 354. Illinois State Water Survey. Urbana, Illinois.

- Schock, S.C., E. Mehnert, M.E. Caughey, G.B. Dreher, W.S. Dey, S. Wilson, C. Ray, S.F.J. Chou, J. Valkenburg, J.M. Gosar, J.R. Karny, M.L. Barnhardt, W.F. Black, M.R. Brown, and V.J. Garcia. 1992. *Pilot Study: Agricultural chemicals in rural, private wells in Illinois*. Illinois State Geological Survey and Illinois State Water Survey Cooperative Groundwater Report 14, 80 p.
- Schwegman, J. E. 1973. *Comprehensive plan for the Illinois nature preserves system. Part 2. The natural divisions of Illinois*. Illinois Nature Preserves Commission, Springfield.
- Upper Mississippi River Basin Commission. 1981. *Water Resources Management Plan, Volume II, Number 9, Rock River Basin*.
- USDA National Agriculture Statistics Service, Illinois Department of Natural Resources, and Illinois Department of Agriculture. 2002. *Land Cover of Illinois 1999-2000*. Springfield, IL.
- Walton, W.C. 1965. *Ground-water recharge and runoff in Illinois*: Illinois State Water Survey Report of Investigation 48, 55pp.
- Weibel C.P., and S.V. Panno. 1997. *Karst Terrains and Carbonate Bedrock in Illinois*. Illinois State Geological Survey, Illinois Map 8; 1:500,000.
- Willman, H.B., and J.C. Frye. 1970. *Pleistocene Stratigraphy of Illinois*. Illinois State Geological Survey, Bulletin 94, 204p.

Appendix A. Land cover in sub-watersheds of the Rock River Basin (Illinois portion only).

IEPA Code	Name	Total Watershed Size		Percent Cropland	Percent Grassland	Percent Forest	Percent Urban (built-up)	Percent Urban (open)	Percent Wetland-forested	Percent Wetland-all other	Percent Open Water	Percent Barren Land
		Acres	Square Mi.									
PLBA	South Beach Cr.	4,704	7.3	94.8	4.7	0.1	0.3	0.0	0.0	0.0	0.0	0.0
PWIA	Pink Cr.	10,737	16.8	73.4	19.1	5.7	0.3	0.0	1.4	0.2	0.0	0.0
PWPC	E. Br. Richland Cr.	3,587	5.6	70.6	22.7	6.0	0.3	0.0	0.3	0.0	0.0	0.0
PBO	Fairfield Union Sp. D.	5,855	9.1	90.3	7.3	1.9	0.4	0.0	0.2	0.0	0.0	0.0
PWC	Rhule Cr.	2,542	4.0	76.1	15.0	4.9	0.4	0.0	3.3	0.2	0.1	0.0
PHI	Fivemile Cr.	8,730	13.6	82.5	12.4	4.2	0.5	0.0	0.5	0.0	0.0	0.0
POA	Middle Cr.	15,407	24.1	70.8	16.2	10.7	0.5	0.0	1.8	0.0	0.1	0.0
PBM	Fairfield Ditch	9,299	14.5	89.3	8.5	1.4	0.6	0.0	0.1	0.0	0.0	0.0
PPA	Black Walnut Cr.	13,672	21.4	79.3	13.0	6.1	0.6	0.0	0.9	0.0	0.1	0.0
PWI	Rock Run	45,218	70.7	66.9	23.7	6.7	0.6	0.5	1.3	0.1	0.1	0.0
PJ	Pine Cr.	32,364	50.6	67.9	18.0	11.7	0.7	0.0	1.4	0.1	0.1	0.0
PWBB	N. Br. Otter Cr.	12,103	18.9	56.1	25.7	15.3	0.7	1.1	1.0	0.0	0.1	0.0
PQCK	Rosetter Cr.	6,077	9.5	80.6	12.9	1.5	0.8	0.0	2.0	0.4	0.2	1.5
PWH	Sumner Cr.	23,719	37.1	82.9	12.5	2.6	0.8	0.0	1.0	0.2	0.0	0.0
PWPA	Cedar Cr.	21,054	32.9	70.8	22.7	4.5	0.8	0.6	0.6	0.0	0.0	0.0
PWP	Richland Cr.	50,668	79.2	65.1	25.9	5.5	0.8	0.6	1.6	0.3	0.1	0.0
PNA	Mud Cr.	28,142	44.0	77.0	15.3	5.8	0.8	0.4	0.6	0.0	0.1	0.0
PEE	Otter Cr.	21,566	33.7	89.1	8.2	1.1	0.9	0.5	0.2	0.0	0.1	0.0
PWNB	Winneshiek Cr.	9,102	14.2	68.4	25.7	3.2	1.0	1.1	0.5	0.0	0.0	0.0
PBG	Big Slough Ditch	25,698	40.2	86.2	8.2	3.9	1.0	0.0	0.6	0.1	0.1	0.0
PLC	Steward Cr.	27,027	42.2	89.8	7.7	0.7	1.1	0.2	0.3	0.0	0.2	0.0
PBS	Winnebago Ditch	37,334	58.3	88.1	8.3	1.6	1.1	0.1	0.7	0.1	0.1	0.0
PLE	Prairie Cr.	11,833	18.5	80.0	11.0	6.5	1.1	0.3	1.1	0.0	0.0	0.0
PN	Leaf R.	45,751	71.5	72.2	17.5	6.9	1.2	0.8	1.2	0.1	0.1	0.0
PWB	Sugar R.	43,756	68.4	58.7	19.2	11.3	1.2	2.2	4.8	1.2	1.3	0.0
PQCB	Owens Cr.	28,658	44.8	88.9	7.7	1.0	1.3	0.2	0.5	0.3	0.0	0.1
PO	Mill Cr.	18,100	28.3	72.4	19.2	4.8	1.3	0.5	1.6	0.1	0.0	0.0
PBU	Willow Cr.	30,229	47.2	87.5	8.6	1.5	1.4	0.1	0.6	0.0	0.2	0.0
PHB	Sugar Cr.	18,715	29.2	85.6	10.8	1.8	1.4	0.1	0.3	0.0	0.0	0.0



Appendix A. Land cover in sub-watersheds of the Rock River Basin (Illinois portion only).

IEPA Code	Name	Total Watershed Size		Percent Cropland	Percent Grassland	Percent Forest	Percent Urban (built-up)	Percent Urban (open)	Percent Wetland-forested	Percent Wetland-all other	Percent Open Water	Percent Barren Land
		Acres	Square Mi.									
PBI	Spring Cr.	46,935	73.3	77.3	16.8	3.7	1.4	0.4	0.3	0.0	0.1	0.0
PWA	Raccoon Cr.	9,792	15.3	42.6	26.0	16.4	1.4	0.0	11.2	1.8	0.5	0.0
PP	Stillman Cr.	25,244	39.4	74.4	16.6	4.8	1.5	0.4	2.0	0.2	0.1	0.0
PE	Rock Cr.	128,325	200.5	77.2	13.1	6.2	1.5	0.5	1.0	0.1	0.4	0.0
PQJ	N. Br. Kishwaukee R.	24,971	39.0	55.0	31.2	10.7	1.5	0.0	0.1	1.0	0.4	0.1
PK	Franklin Cr.	31,069	48.5	76.7	12.0	7.1	1.6	0.3	1.8	0.2	0.2	0.0
PWBA	Otter Cr.	28,725	44.9	59.9	21.4	10.9	1.6	3.4	1.4	0.3	1.1	0.0
PB	Green R.	715,710	1,118.3	79.2	11.5	4.9	1.7	0.5	1.5	0.2	0.6	0.0
PQEF	L. Beaver Cr.	8,304	13.0	72.9	18.0	6.1	1.7	0.9	0.1	0.1	0.1	0.2
PW	Pecatonica R.	509,656	796.3	67.5	18.0	7.1	1.8	1.0	2.8	1.1	0.7	0.0
PZR	Threemile Cr.	22,846	35.7	88.2	7.9	1.3	1.9	0.0	0.5	0.0	0.2	0.0
PWN	Yellow Cr.	124,425	194.4	78.6	12.6	5.0	1.9	0.9	0.7	0.1	0.1	0.0
PBJA	Coal Cr.	93,214	145.6	76.5	12.7	5.6	1.9	0.5	1.6	0.2	1.0	0.0
PQBA	E. Br. Killbuck Cr.	29,264	45.7	87.7	9.1	0.4	2.0	0.2	0.3	0.2	0.2	0.0
PQB	Killbuck Cr.	59,054	92.3	84.5	7.9	2.7	2.0	0.3	2.2	0.3	0.2	0.0
PH	Elkhorn Cr.	108,728	169.9	78.2	14.3	4.1	2.0	0.4	0.8	0.1	0.1	0.0
PBD	Mineral Cr.	18,107	28.3	73.5	15.3	7.3	2.0	0.7	1.0	0.0	0.2	0.0
PA	Mill Cr.	39,993	62.5	56.1	20.1	18.4	2.0	1.7	1.1	0.0	0.2	0.3
PWQ	Waddams Cr.	13,288	20.8	50.1	19.9	23.0	2.0	3.5	1.1	0.1	0.4	0.0
PBP	Walnut Cr.	25,702	40.2	81.5	11.8	2.9	2.1	0.7	0.6	0.1	0.3	0.0
PHE	Buffalo Cr.	19,893	31.1	80.2	12.8	3.6	2.1	0.9	0.4	0.0	0.0	0.0
PQF	Coolidge Cr.	11,048	17.3	68.9	19.0	4.7	2.3	1.0	2.8	0.4	1.0	0.0
PBJ	Mud Cr.	60,859	95.1	71.2	16.4	7.4	2.3	0.8	1.0	0.2	0.7	0.0
PQH	Rush Cr.	19,804	30.9	58.4	28.2	9.1	2.4	0.6	0.2	0.4	0.3	0.5
PLB	Beach Cr.	10,932	17.1	89.4	6.2	0.4	2.7	0.6	0.2	0.0	0.4	0.0
PWBC	S. Br. Otter Cr.	12,582	19.7	62.7	17.2	7.6	2.8	6.6	0.7	0.0	2.3	0.0
PQF	Coon Cr.	98,523	153.9	75.1	15.7	3.6	2.9	1.0	1.0	0.4	0.2	0.2
PQE	Piscasaw Cr.	63,884	99.8	68.0	20.2	6.0	2.9	1.9	0.5	0.2	0.2	0.2
PQD	Beaver Cr.	44,747	69.9	65.4	21.6	5.8	3.1	2.5	0.8	0.1	0.5	0.1
PU	N. Kinnickinnick Cr.	14,526	22.7	58.3	22.3	12.2	3.5	1.7	1.7	0.1	0.2	0.0
PQC	S. Br. Kishwaukee R.	279,743	437.1	80.9	9.5	2.0	3.6	2.2	1.0	0.2	0.3	0.3

# Appendix A. Land cover in sub-watersheds of the Rock River Basin (Illinois portion only).

IEPA Code	Name	Total Watershed Size		Percent Cropland	Percent Grassland	Percent Forest	Percent Urban (built-up)	Percent Urban (open)	Percent Wetland-forested	Percent Wetland-all other	Percent Open Water	Percent Barren Land
		Acres	Square Mi.									
P	Rock R.	3,379,221	5,280.0	71.0	14.0	6.4	3.6	1.5	2.0	0.5	0.9	0.1
PQCL	E. Br. S. Br. Kish. R.	78,264	122.3	79.0	11.7	2.1	3.9	2.4	0.1	0.2	0.1	0.4
PL	Kyte R.	69,962	109.3	74.9	10.2	6.1	4.2	1.2	2.6	0.4	0.5	0.0
PQ	Kishwaukee R.	779,718	1,218.3	70.8	15.2	4.4	4.3	2.8	1.4	0.5	0.4	0.2
PJB	Coon Cr.	10,205	15.9	78.5	10.0	3.6	4.7	1.9	1.3	0.0	0.0	0.0
PQFC	Burlington Cr.	23,658	37.0	71.5	15.8	3.6	5.0	3.5	0.0	0.4	0.1	0.1
PZB	Coal Cr.	16,742	26.2	62.5	19.7	10.8	5.1	0.9	0.7	0.0	0.2	0.0
PBE	Geneseo Cr.	17,730	27.7	78.8	10.2	2.1	5.2	2.5	1.0	0.0	0.1	0.0
PQEC	Lawrence Cr.	11,714	18.3	53.0	26.8	8.3	6.3	4.4	0.1	0.7	0.2	0.2
PQEA	Mokeler Cr.	5,869	9.2	46.2	23.3	13.6	7.4	8.2	0.1	0.6	0.4	0.3
PQI	S. Br. E. Kishwaukee	46,995	73.4	50.6	21.4	5.3	8.3	11.2	0.1	2.2	0.7	0.1
PV	Dry Cr.	13,354	20.9	46.3	23.9	12.2	8.9	5.8	2.6	0.1	0.1	0.1
PQFD	Hampshire Cr.	8,419	13.2	65.2	14.1	3.8	9.4	6.8	0.0	0.4	0.1	0.1
PSB	Kent Cr.	29,185	45.6	50.2	16.7	10.9	15.5	0.4	5.8	0.2	0.3	0.0

Watershed size and land cover is based on that part of the total watershed of each stream which lies within Illinois.

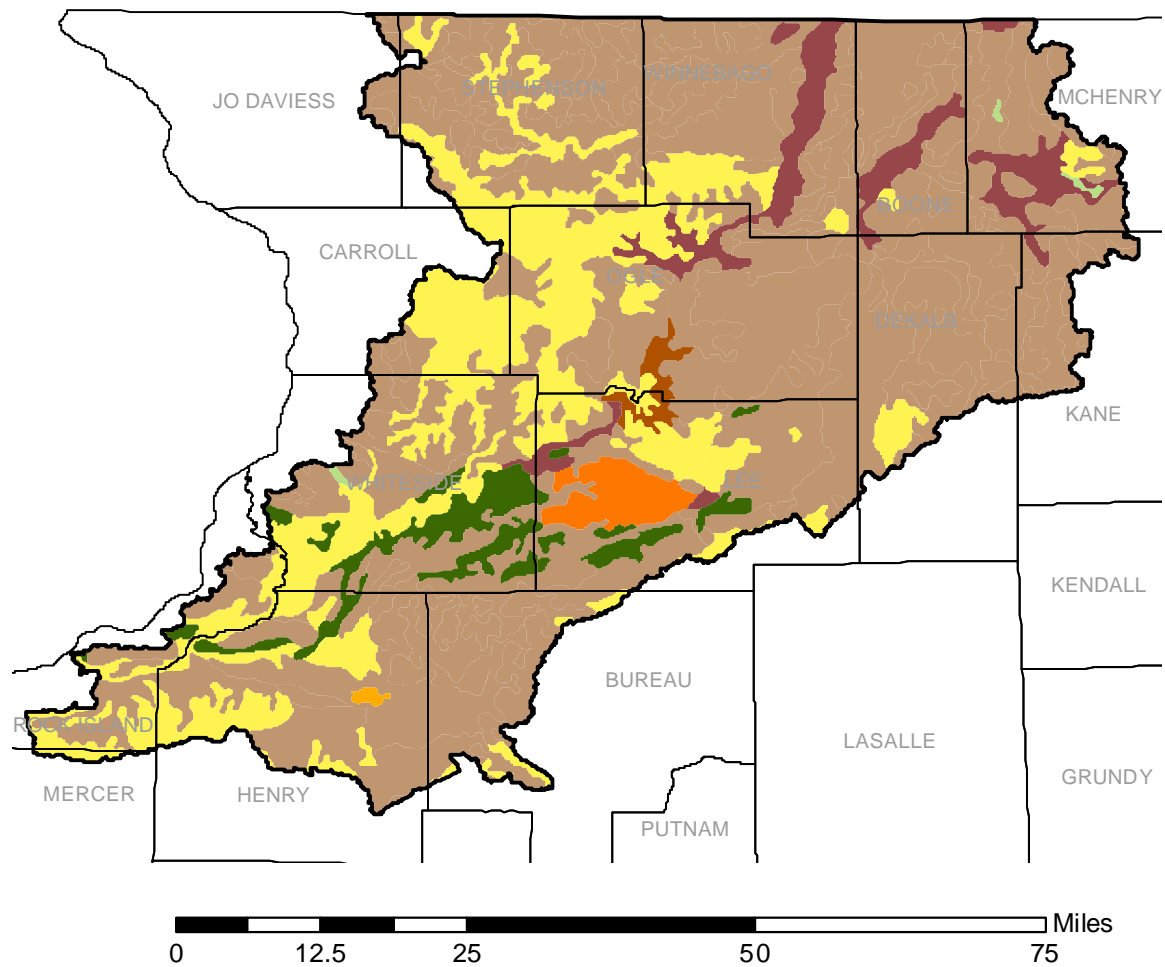
Land cover percentages were derived from USDA National Agriculture Statistics Service, Illinois Department of Natural Resources, and Illinois Department of Agriculture. 2002. Land Cover of Illinois 1999-2000. Springfield, IL.

**Appendix B. Soil associations in the Rock River Basin.**

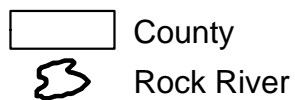
<b>Soil Association (ID #)</b>	<b>Acres</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Tama-Muscatine-Sable (II002)	464,880	13.7	13.7
Drummer-Plano-Elburn (II012)	407,443	12.0	25.7
Rozetta-Fayette-Hickory (II034)	351,801	10.4	36.1
Saybrook-Drummer-Parr (II014)	342,827	10.1	46.3
Jasper-La Hogue-Selma (II023)	236,927	7.0	53.3
Ogle-Durand-Tama (II007)	190,260	5.6	58.9
Warsaw-Lorenzo-Dakota (II022)	157,952	4.7	63.6
Sawmill-Genesee-Lawson (II028)	136,413	4.0	67.6
Flagg-Pecatonica-Kendall (II039)	120,259	3.6	71.2
Miami-Strawn-Hennepin (II046)	104,104	3.1	74.2
Waukegan-Richwood-Joy (II008)	102,310	3.0	77.3
Gilford-Maumee-Sparta (II024)	100,515	3.0	80.2
Plano-Griswold-Ringwood (II015)	95,130	2.8	83.0
Ashdale-Dodgeville-Tama (II025)	77,181	2.3	85.3
Pecatonica-Whalan-Flagg (II075)	73,591	2.2	87.5
Vanpetten-Clyde-Prairieville (II074)	52,052	1.5	89.0
Seaton-Lacrescent-Lawson (II031)	44,873	1.3	90.4
Camden-Drummer-Starks (II044)	43,078	1.3	91.6
Fayette-St. Charles-Radford (II043)	41,283	1.2	92.9
Flanagan-Drummer-Catlin (II010)	37,693	1.1	94.0
Plainfield-Bloomfield-Sparta (II056)	26,924	0.8	94.8
Tama-Ashdale-Muscatine (II076)	25,129	0.7	95.5
Milford-Martinton-Del Rey (II021)	19,744	0.6	96.1
Elliott-Ashkum-Varna (II016)	19,744	0.6	96.7
Kidder-Mchenry-Pella (II047)	19,744	0.6	97.3
Chelsea-Boone-Dickinson (II058)	17,949	0.5	97.8
Fox-Casco-Rodman (II053)	16,154	0.5	98.3
Palsgrove-Dubuque-Fayette (II059)	16,154	0.5	98.7
Port Byron-Joy-Seaton (II001)	16,154	0.5	99.2
Morley-Markham-Ashkum (II048)	7,180	0.2	99.4
Derinda-Eleroy-Massbach (II065)	7,180	0.2	99.6
Houghton-Lena-Muskego (II030)	5,385	0.2	99.8
Lenzburg-Morristown-Rapatee (II070)	5,385	0.2	100.0

Derived from STATSGO 1994.

## Appendix C. Soil Types in the Rock River Basin



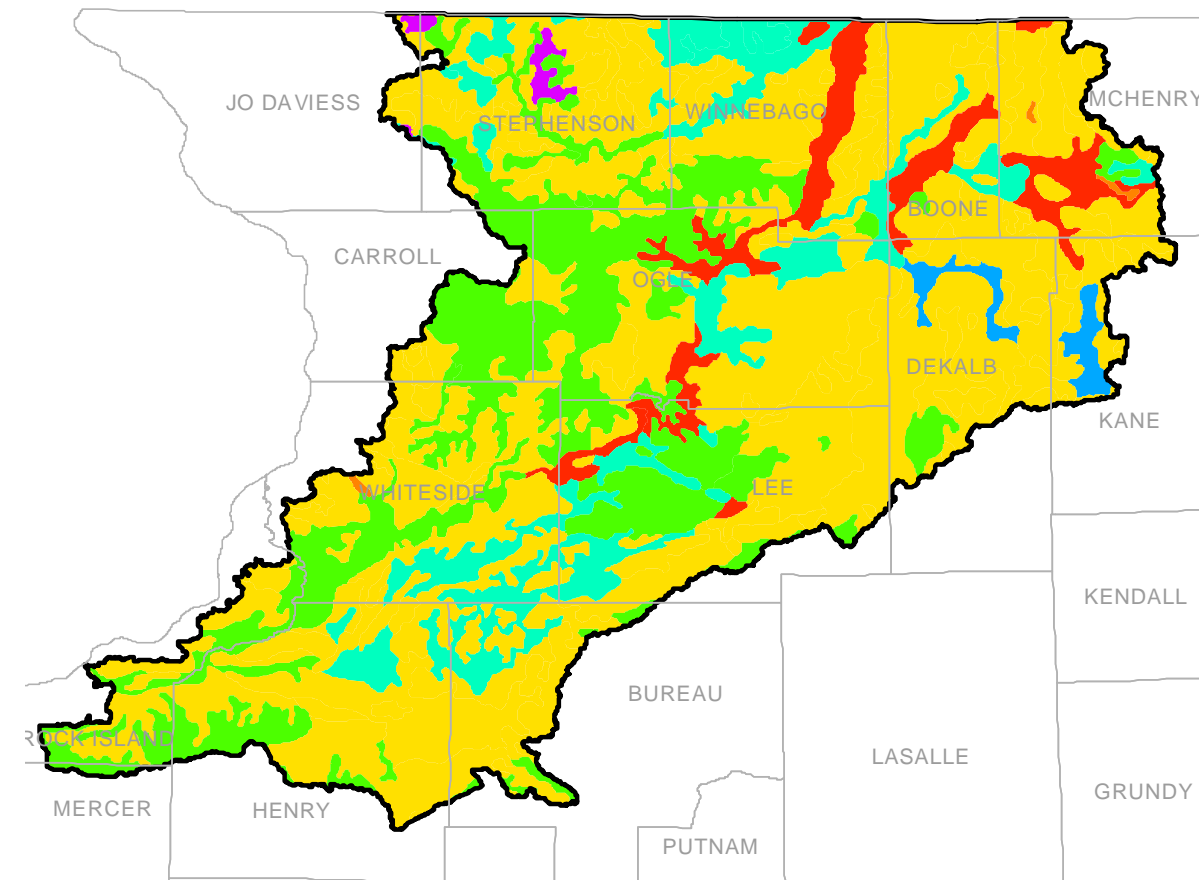
### Soil



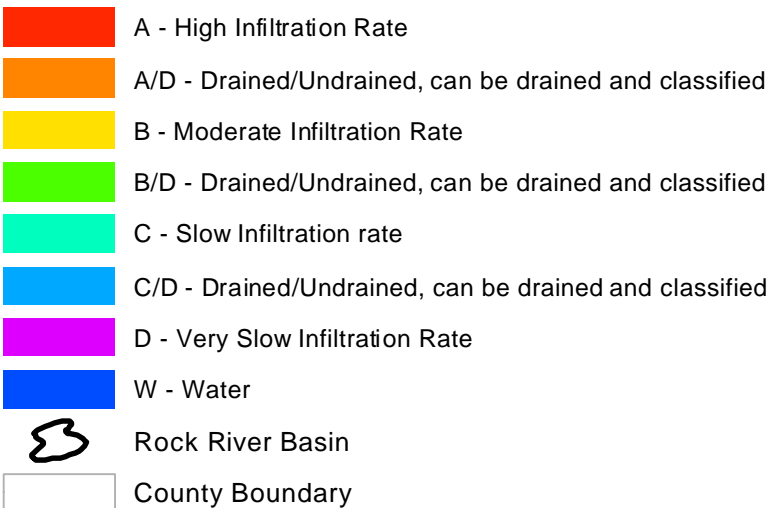
Illinois EPA

Source Information  
Watershed Boundaries from ISWS.  
Statsgo Soil coverages from USDA-NRCS

## Appendix D. Soil Hydrologic Groups in the Rock River Basin.



### Soil Hydrologic Group

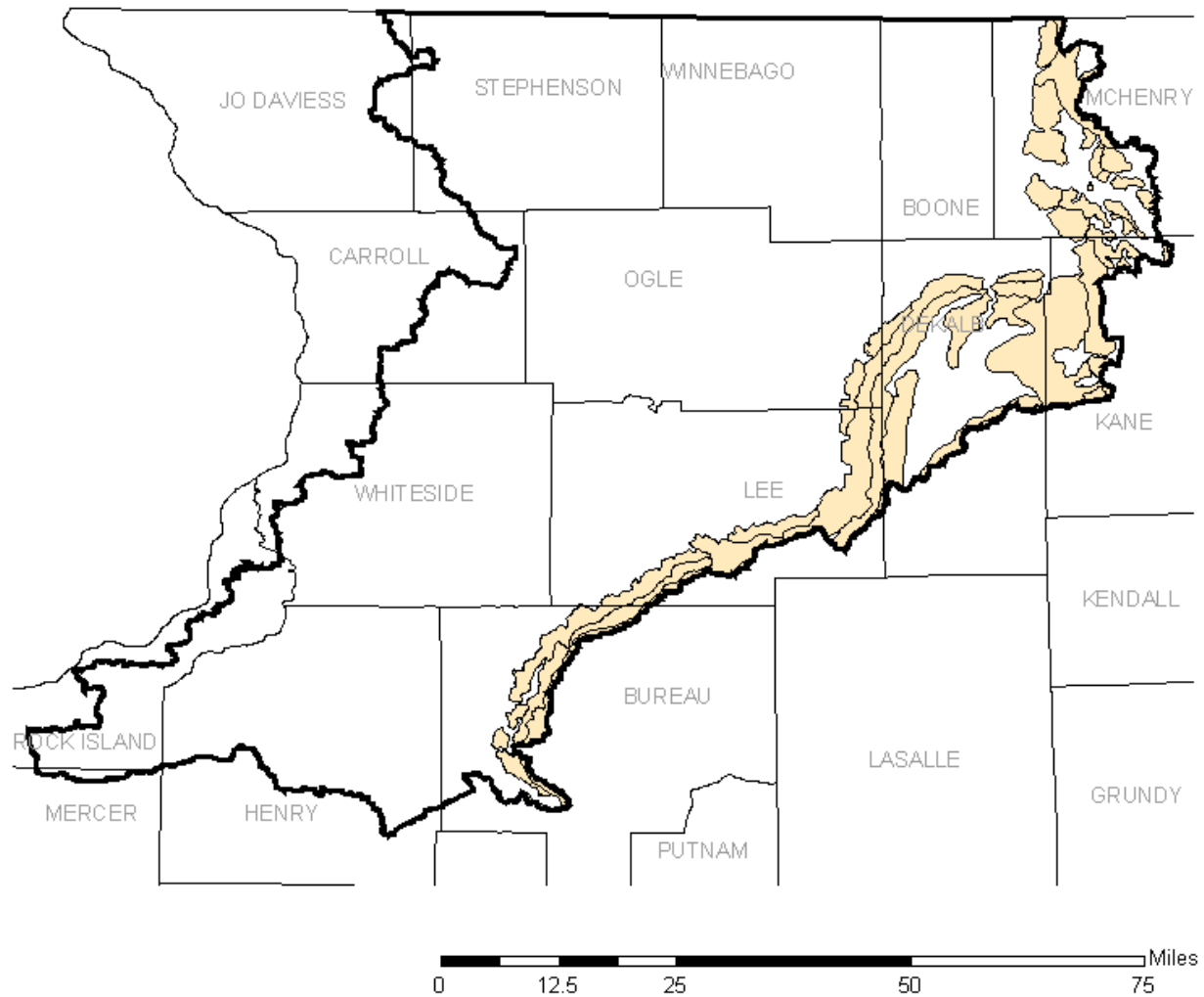


### Source Information:




Rock River Basin  
Boundaries from Illinois  
State Water Survey.

Statsgo Soil coverages from  
USDA-NRCS.

## Appendix E. Glacial Moraines in the Rock River Basin.



### Legend

-  County Boundary
-  Rock River Basin
-  End Moraines

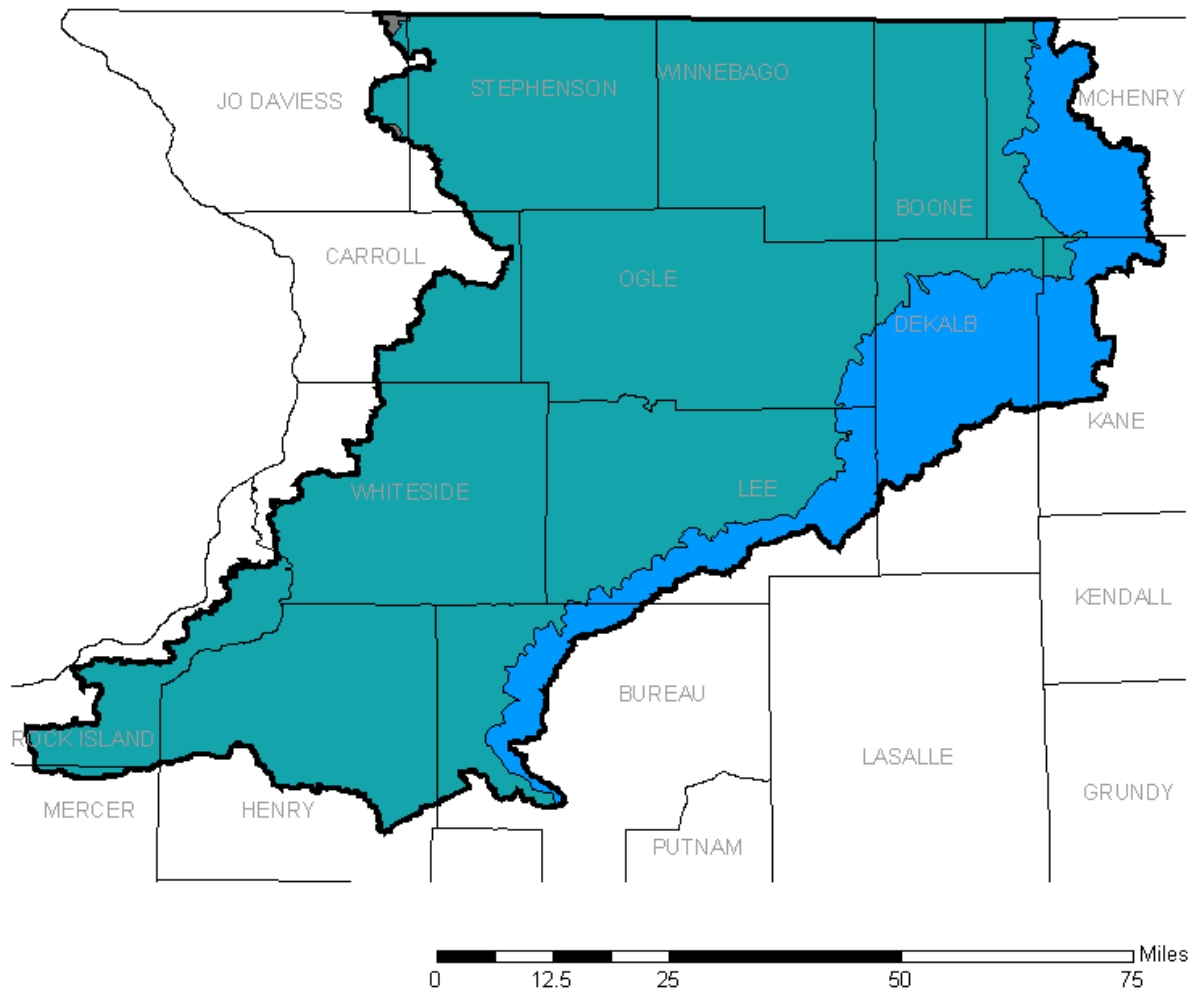


Illinois EPA



#### Source Information

Watershed Boundaries from Illinois State Water Survey.  
Glacial Moraines from ISGS.





## Appendix F. Glacial Episodes in the Rock River Basin



### Legend

-  County Boundary
-  Rock River Basin

### Glacial Boundaries

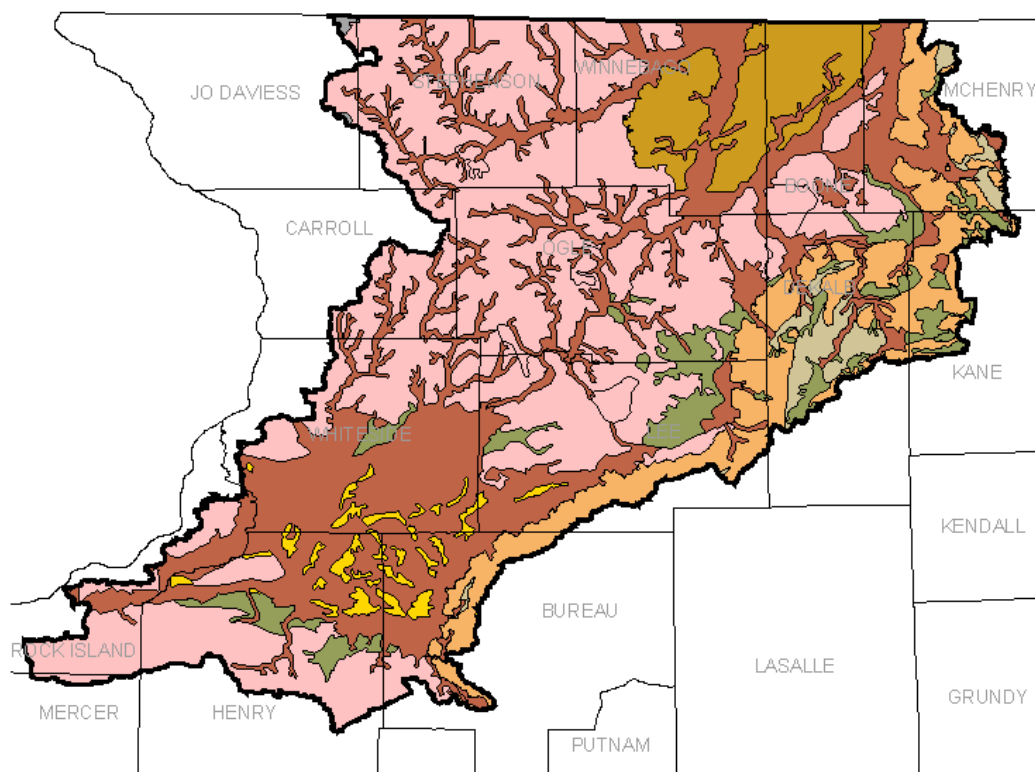
-  Wisconsin Episode
-  Illinoian Episode
-  Pre-Illinoian
-  Non Glaciated




Illinois EPA

Watershed Boundaries from Illinois State Water Survey.  
Glacial Boundaries from ISGS.


## Appendix G. Quaternary Geologic Materials in the Rock River Basin.





 County Boundary


 Rock River Basin


### Quaternary Geologic Materials

 Cahokia and/or Henry Formation

 Cahokia and/or Henry Formation


 Equality Formation

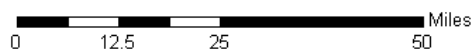
 Wedron Group - End Moraine

 Wedron Group - Ground Moraine

 Winnebago Formation

 Glasford Formation

 Paleozoic Rock

 Miles

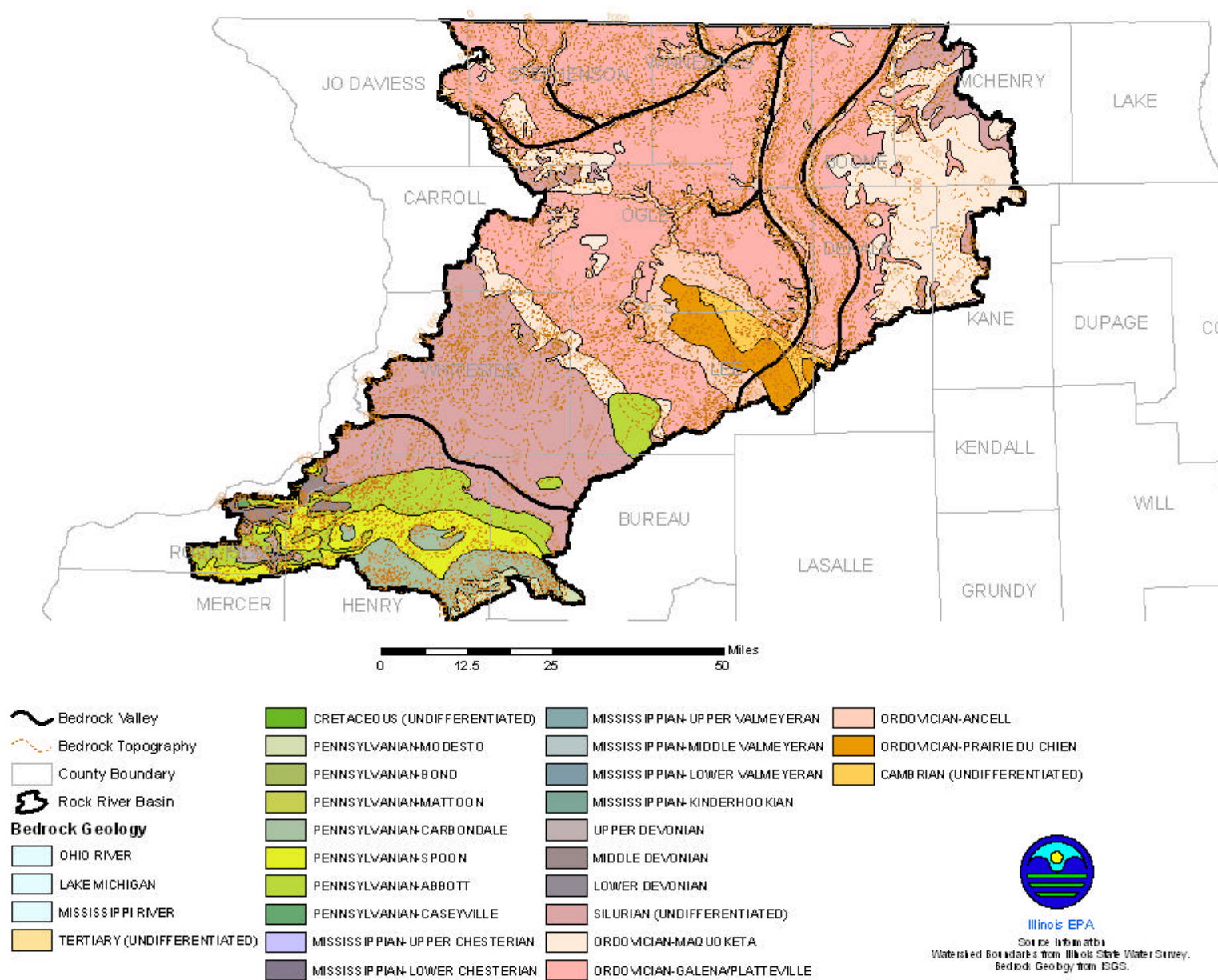


Illinois EPA

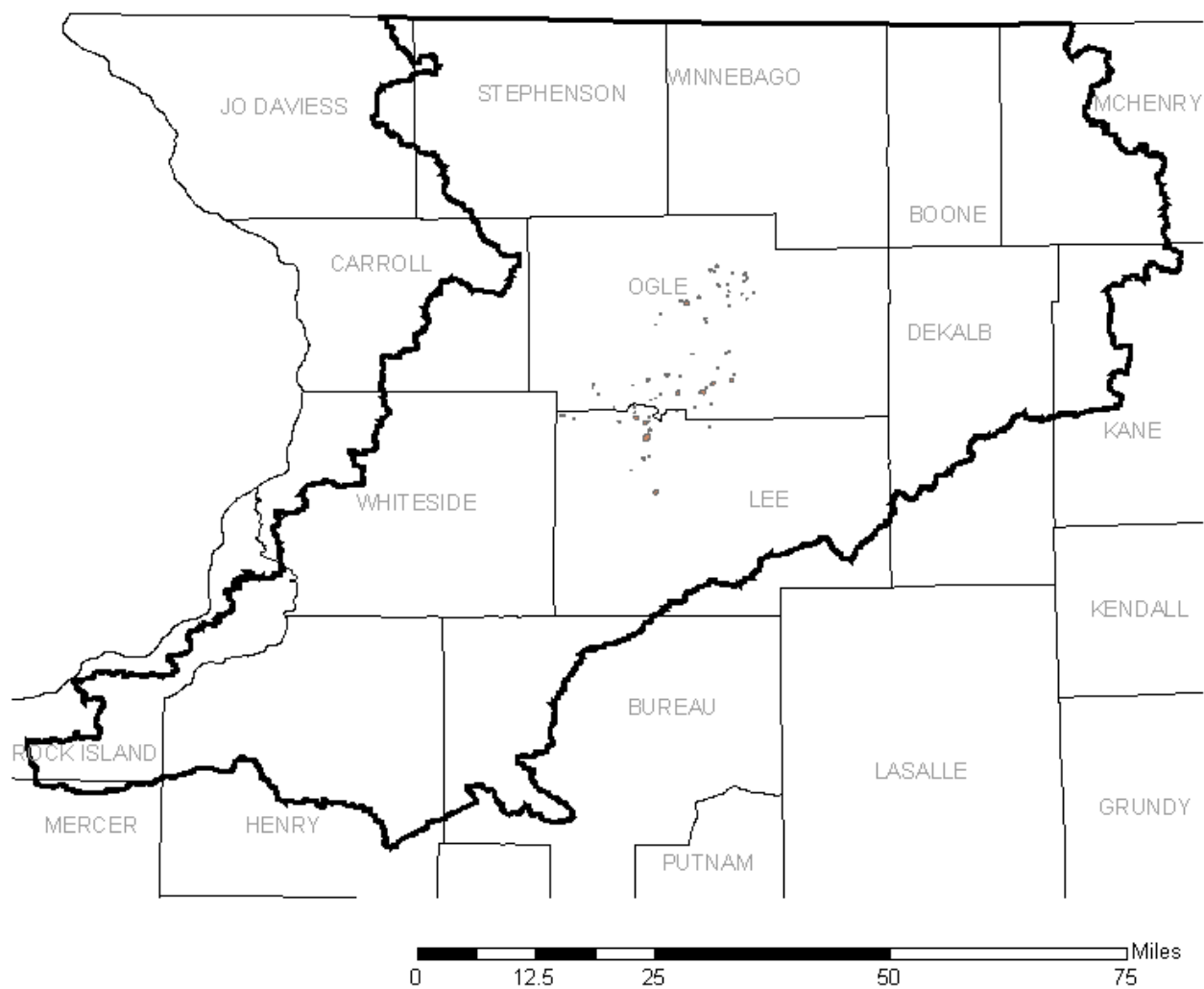
Source Information  
 Aquifer Boundaries from Illinois State Water Survey.  
 Quaternary Geology from ISGS.






## Appendix H. Bedrock Geologic Materials in the Rock River Basin.



## Appendix I. Karst Areas in the Rock River Basin.



### Legend

-  County Boundary
-  Rock River Basin
-  Karst Areas



Illinois EPA

Source Information  
watershed Boundaries from Illinois State Water Survey.  
Karst Areas from ISGS.

**Appendix J. Public land in the Rock River Basin (Illinois portion).**

<b>Owner</b>	<b>Site Name</b>	<b>Acres</b>
State Land		
	Lake Le Aqua Na State Park	701
	Castle Rock State Park	1,778
	Lowden State Park	203
	Lowden-Miller State Forest	2,292
	Rock Cut State Park	3,157
	White Pines Forest State Park	393
	Big Bend State Fish & Wildlife Area	1,097
	Hennepin Canal Parkway State Park	3,233
	Johnson-Sauk Trail State Park	1,332
	Lee County (Green River) State Conservation Area	2,250
	Mautino (Sheffield Ranch) State Fish & Wildlife Area	909
	Morrison-Rockwood State Park	1,131
	Prophetstown State Park	60
	Total State Land:	18,536
County Land*		
	Colored Sands Forest Preserve	314
	Four Lakes Forest Preserve	35
	Hartley Memorial Forest Preserve	44
	Laona Heights Forest Preserve	43
	Macktown Forest Preserve	271
	Pecatonica River Forest Preserve	525
	Pecatonica Wetlands Forest Preserve	954
	Seward Bluffs Forest Preserve	189
	Sugar River Alder Site Forest Preserve	347
	Sugar River Forest Preserve	658
	Trask Bridge Forest Preserve	22
	Two Rivers Forest Preserve	15
	Almwood Homestead Forest Preserve	336
	By-com	103
	Byron Forest Preserve	640
	Carl & Louis Klehm Forest Preserve	163
	Clayton Andrews Forest Preserve	99
	Etnyre	35
	Fuller Memorial Forest Preserve	149
	He-Leo	24
	Headquarters for Forest Preserve	64
	Hononegah Forest Preserve	257
	Indian Hill Forest Preserve	41
	Keiselburg Forest Preserve	201
	Kinnikinnick Conservation Area	413
	Klehm Arboretum & N. IL Botany Garden Forest Preserve	5
	Long Prairie Trail	26
	Millrace Isle Forest Preserve	148
	Roland Olson Forest Preserve	136
	Severson Dells Forest Preserve	354
	The Ledges Forest Preserve	193
	Total County Land:	6,804

\* Not a comprehensive list of county owned land.

Source: Illinois Department of Natural Resources, 1998<sup>1</sup>, 1998<sup>2</sup>, 1998<sup>3</sup>, 2002

## Appendix K. Illinois Natural Areas in the Rock River Basin.

<b>NA#<sup>1</sup> Area Name</b>	<b>County</b>	<b>Acres<sup>2,3</sup></b>
348 Flora Prairie	Boone	12.5
977 Ipsen Prairie	Boone	13.3
720 Kishwaukee River	Boone, McHenry, Winnebago	655.2
350 McCune Sand Prairie Conservation Area	Bureau	194.2
1423 Fairfield Ditch	Bureau, Henry	63.8
414 Brookville Lutheran Cemetery Prairie	Carroll	1.8
451 Afton Cemetery Prairie	DeKalb	7.7
522 DeKalb Geological Area	DeKalb	35.0
53 Wilkinson Marsh	DeKalb	20.5
574 Edford Railroad Prairie	Henry	2.5
575 Green River East Railroad Prairie	Henry	5.0
576 Green River West Railroad Prairie	Henry	3.7
1103 Mineral Marsh	Henry	301.3
573 Munson Township Cemetery Prairie	Henry	5.4
1100 Ward's Grove	Jo Daviess	611.8
626 Burlington Prairie	Kane	5.9
1474 Freeman Kame	Kane	0.0
1410 Huntley Road Marsh	Kane	29.7
1411 Kane County Swainson's Hawk Habitat	Kane	1,480.6
622 Rutland Township Bog	Kane	35.6
694 Amboy Central Railroad Prairie	Lee	6.0
693 Amboy North Railroad Prairie	Lee	25.6
1116 Amboy Site	Lee	0.0
695 Amboy South Railroad Prairie	Lee	18.3
691 Ashton East Geological Area	Lee	6.5
478 Ashton Geological Area	Lee	4.7
690 Compton Geological Area	Lee	12.3
479 Dixon Southwest Geological Area	Lee	17.7
1109 East Grove	Lee	0.0
683 Foley Sand Prairie	Lee	13.9
1068 Franklin Creek	Lee	146.7
686 Grand Detour Yellow Birch Site	Lee	11.0
1072 Green River Conservation Area	Lee	64.0
1112 Kaecker Farm Site	Lee	255.0
1115 Longanecker Farm	Lee	0.0
1113 Marion Township Site	Lee	0.0
684 Rock River Yellow Birch Stand	Lee	7.1
1110 Sandy Hill Slough	Lee	41.7
1114 Swickheim Site	Lee	0.0
689 Temperance Hill Cemetery Prairie	Lee	2.3
696 Walnut Railroad Prairie	Lee	4.5
685 Nachusa Grasslands	Lee, Ogle	1,569.5

# Appendix K. Illinois Natural Areas in the Rock River Basin.

NA# <sup>1</sup>	Area Name	County	Acres <sup>2,3</sup>
710	Beck Woods Conservation Area	McHenry	92.6
714	Coyne Arrow Grass Site	McHenry	10.7
705	Deep Cut Marsh Wildlife Refuge	McHenry	19.1
1263	Exner Marsh	McHenry	296.7
98	Harvard East Geological Area	McHenry	27.4
83	Harvard Geological Area	McHenry	25.6
1268	Harvard Savanna	McHenry	76.7
1269	Hum Railroad Prairie East	McHenry	45.4
1270	Hum Railroad Prairie West	McHenry	167.8
1504	Kloempken Marsh	McHenry	0.0
1508	Piscasaw Creek	McHenry	0.0
1509	Pleasant Valley	McHenry	0.0
1256	Turnberry Fen	McHenry	40.0
90	Adeline Prairie	Ogle	4.7
1105	Babson Hollow	Ogle	4.3
773	Beach Cemetery Prairie	Ogle	3.0
1106	Byron Dragway Prairie	Ogle	15.4
1052	Castle Rock	Ogle	639.0
1107	Commonwealth Edison Prairie	Ogle	145.4
11	Douglas E. Wade Memorial Prairie	Ogle	11.8
770	Fearer Tract At Castle Rock	Ogle	143.2
89	Heeren Prairie	Ogle	3.2
1454	Jarrett Prairie	Ogle	139.0
1108	Killbuck Prairie	Ogle	0.0
772	L & M Prairie	Ogle	1.1
86	Lowden Memorial State Park	Ogle	21.7
1455	Lowden-Miller Forest	Ogle	2,291.9
774	Mount Morris East Geological Area	Ogle	10.0
458	Oregon Geological Area	Ogle	6.6
88	Pine Rock	Ogle	55.4
459	Prairie Star School Geological Area	Ogle	2.8
765	Sinnissippi Cornus Canadensis Site	Ogle	2.5
74	Stronghold Hill Prairie	Ogle	0.4
87	White Pines Forest State Park	Ogle	63.0
140	Black Hawk Forest	Rock Island	92.1
139	Indian Bluff Hill Prairie	Rock Island	1.7
220	McNeal Marsh	Rock Island	46.1
490	Milan South Geological Area	Rock Island	1.9
1292	Rock River-Carr Island	Rock Island	524.7

## Appendix K. Illinois Natural Areas in the Rock River Basin.

NA# <sup>1</sup>	Area Name	County	Acres <sup>2,3</sup>
845	Afolkey Road Prairie	Stephenson	1.4
843	Dakota Prairie	Stephenson	1.6
844	Freeport Prairie	Stephenson	4.6
846	Freeport Southeast Geological Area	Stephenson	36.2
875	Clyde Cemetery Prairie	Whiteside	1.4
1461	Coon Creek	Whiteside	57.4
1075	Lyndon - Agnew Railroad Prairie	Whiteside	31.7
880	Sandy Town Cemetery Prairie	Whiteside	4.0
1074	Wheelock Railroad Prairie	Whiteside	6.0
916	Bell Bowl Prairie	Winnebago	21.2
1463	Beloit Gravel Prairie	Winnebago	8.7
1464	Burr Oak Road Prairie	Winnebago	7.0
926	Durand Southeast Geological Area	Winnebago	3.1
1042	Hamborg Railroad Prairie	Winnebago	1.4
918	Harlem Hills	Winnebago	59.5
909	Hartley Memorial Forest Preserve	Winnebago	39.8
908	Laona Heights Forest Preserve	Winnebago	19.9
919	Nimtz Ponds	Winnebago	19.7
1038	Owen Center Road Prairie	Winnebago	10.6
910	Pecatonica Bottoms	Winnebago	44.6
917	Rockton Bog	Winnebago	67.7
1465	Rockview Stone Quarry	Winnebago	3.3
920	Searls Park Prairie	Winnebago	74.5
994	Shirland Railroad Prairie	Winnebago	4.2
915	Silver Creek Prairie	Winnebago	4.3
1466	Sugar River	Winnebago	2,995.5
923	Sumner Prairie	Winnebago	19.9
1026	Willow Creek	Winnebago	96.8
914	Winqvist Prairie	Winnebago	1.9
1025	South Ledges Of Kinnikinnick Creek	Winnebago, Boone	45.7
Total Acres:			14,418.8

<sup>1</sup>NA# refers to the number designated in the Natural Heritage Database (IDNR, 1997).

<sup>2</sup>Size is derived from GIS coverage, *Natarea*, Illinois Natural History Survey, 1995.

<sup>3</sup> Areas with 0.0 acres have no established boundary.

## Appendix L. Illinois Nature Preserves in the Rock River Basin

NP# <sup>1</sup>	Name	County	Acres
227	Flora Prairie	Boone	12.8
53	Kinnikinnick Creek	Boone	72.5
118	Brookville Lutheran Cemetery Prairie	Carroll	4.9
229	Wilkinson-Renwick Marsh	De Kalb	36.0
160	Greenlee Cemetery Prairie	Henry	2.9
112	Munson Township Cemetery Prairie	Henry	5.4
151	Wards Grove	Jo Daviess	310.6
228	Burlington Prairie	Kane	2.6
237	Freeman Kame	Kane	37.0
162	Foley Sand Prairie	Lee	13.3
24	Franklin Creek	Lee	34.4
24	Franklin Creek	Lee	17.9
24	Franklin Creek	Lee	46.7
111	Temperance Hill Cemetery Prairie	Lee	2.3
235	Exner Marsh	Mc Henry	114.5
223	Kishwaukee Fen	Mc Henry	49.3
44	Beach Cemetery Prairie	Ogle	3.9
86	Douglas E. Wade Prairie	Ogle	11.5
43	George B. Fell	Ogle	90.2
43	George B. Fell	Ogle	555.5
43	George B. Fell	Ogle	19.0
219	Jarret Prairie	Ogle	96.2
219	Jarret Prairie	Ogle	5.2
16	Pine Rock	Ogle	55.6
125	Black Hawk Forest	Rock Island	95.6
64	Freeport Prairie	Stephenson	11.1
116	Wirth Prairie	Stephenson	7.1
250	Lyndon Prairie	Whiteside	13.6
250	Lyndon Prairie	Whiteside	33.1
250	Lyndon Prairie	Whiteside	12.1
62	Colored Sands Bluff	Winnebago	55.8
46	Harlem Hills	Winnebago	53.2
94	Hartley Memorial	Winnebago	39.1
95	Laona Heights	Winnebago	19.8
96	Pecatonica Bottoms	Winnebago	67.9
149	Plum Grove	Winnebago	22.1
36	Rockton Township Bog	Winnebago	69.0
117	Searls Park Prairie	Winnebago	74.2
97	Severson Dells	Winnebago	21.1
239	Sugar River Alder Site	Winnebago	166.4
	Willow Creek	Winnebago	129.2
205	Wilson Prairie	Winnebago	17.7
Total Acres:			2,508.4

<sup>1</sup>NP# refers to the number designated in the Natural Heritage Database (IDNR, 1997).

<sup>2</sup>Size is derived from GIS coverage, *Natpres*, Illinois Natural History Survey, 1995.

**Appendix M.** Threatened and Endangered Species in the Illinois portion  
of the Rock River Basin

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status<sup>1</sup></b>
Plants:		
American Bur-Reed	<i>Sparganium americanum</i>	SE
American Dog Violet	<i>Viola conspersa</i>	ST
American Mountain-Ash	<i>Sorbus americana</i>	SE
Balsam Poplar	<i>Populus balsamifera</i>	SE
Beaked Sedge	<i>Carex rostrata</i>	ST
Bearberry	<i>Arctostaphylos uva-ursi</i>	SE
Bearded Wheat Grass	<i>Elymus trachycaulus</i>	SE
Black-Seeded Rice Grass	<i>Oryzopsis racemosa</i>	ST
Bog Bedstraw	<i>Galium labradoricum</i>	ST
Bog Clubmoss	<i>Lycopodium inundatum</i>	SE
Bristly Blackberry	<i>Rubus setosus</i>	SE
Broomrape	<i>Orobanche ludoviciana</i>	SE
Bunchberry	<i>Cornus canadensis</i>	SE
Common Bog Arrow Grass	<i>Triglochin maritima</i>	SE
Daisyleaf Grape	<i>Botrychium matricariifolium</i>	SE
Downy Yellow Painted Cup	<i>Castilleja sessiliflora</i>	SE
Dwarf Grape Fern	<i>Botrychium simplex</i> ,	SE
Ear-Leafed Foxglove	<i>Tomenthera auriculata</i>	ST
False Heather	<i>Hudsonia tomentosa</i>	SE
False Tarragon	<i>Artemisia dracunculus</i>	SE
Few-Seeded Sedge	<i>Carex oligosperma</i>	SE
Forked Aster	<i>Aster furcatus</i>	ST
Giant Sunflower	<i>Helianthus giganteus</i>	SE
Grass Pink Orchid	<i>Calopogon tuberosus</i>	SE
Gray Birch	<i>Betula populifolia</i>	SE
Green-Fruited Burreed	<i>Sparganium chlorocarpum</i>	SE
Ground Juniper	<i>Juniperus communis</i>	ST
Ground Pine Clubmoss	<i>Lycopodium dendroideum</i>	SE
Hairy Marsh Yellow Cress	<i>Rorippa islandica</i> subsp. <i>hispida</i>	SE
Hairy Woodrush	<i>Luzula acuminata</i>	SE
Highbush Blueberry	<i>Vaccinium corymbosum</i>	SE
Hill's Thistle	<i>Cirsium hillii</i>	ST
Horsetail	<i>Equisetum sylvaticum</i>	SE
James' Clammyweed	<i>Polanisia jamesii</i>	SE



**Appendix M.** Threatened and Endangered Species in the Illinois portion  
of the Rock River Basin

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status<sup>1</sup></b>
Plants:		
Kittentails	<i>Besseyia bullii</i>	ST
Large Fruited Star Sedge	<i>Carex echinata</i>	SE
Large-Flowered Beard Tongue	<i>Penstemon grandiflorus</i>	SE
Laurentian Fragile Fern	<i>Cystopteris laurentiana</i>	SE
Long Beech Fern	<i>Phegopteris connectilis</i>	SE
Meadow Horsetail	<i>Equisetum pratense</i>	ST
Moccasin Flower	<i>Cypripedium acaule</i>	SE
Narrow-Leaved Sundew	<i>Drosera intermedia</i>	ST
Northern Gooseberry	<i>Ribes hirtellum</i>	SE
Northern Grape Fern	<i>Botrychium multifidum</i>	SE
Northern Panic Grass	<i>Panicum boreale</i>	SE
Oak Fern	<i>Gymnocarpium dryopteris</i>	SE
Pale Vetchling	<i>Lathyrus ochroleucus</i>	ST
Pink Corydalis	<i>Corydalis sempervirens</i>	SE
Pink Milkwort	<i>Polygala incarnata</i>	SE
Pinweed	<i>Lechea intermedia</i>	SE
Pipsissewa	<i>Chimaphila umbellata</i>	SE
Prairie Bush Clover	<i>Lespedeza leptostachya</i>	FT, SE
Prairie Buttercup	<i>Ranunculus rhomboideus</i>	ST
Prairie Dandelion	<i>Microseris cuspidata</i>	SE
Prairie Trout-Lily	<i>Erythronium mesochoreum</i>	SE
Prairie White Fringed Orchid	<i>Platanthera leucophaea</i>	FT, SE
Pretty Sedge	<i>Carex woodii</i>	ST
Purple-Fringed Orchid	<i>Platanthera psycodes</i>	SE
Queen-Of-The-Prairie	<i>Filipendula rubra</i>	ST
Red-Berried Elder	<i>Sambucus pubens</i>	SE
Redroot	<i>Ceanothus herbaceus</i>	SE
Richardson's Rush	<i>Juncus alpinus</i>	SE
Rock Elm	<i>Ulmus thomasii</i>	SE
Running Pine Clubmoss	<i>Lycopodium clavatum</i>	SE
Rusty Woodsia	<i>Woodsia ilvensis</i>	SE
Shadbush	<i>Amelanchier interior</i>	SE
Shaved Sedge	<i>Carex tonsa</i>	SE
Slender Bog Arrow Grass	<i>Triglochin palustris</i>	SE

**Appendix M.** Threatened and Endangered Species in the Illinois portion  
of the Rock River Basin

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status<sup>1</sup></b>
Plants:		
Small Sundrops	<i>Oenothera perennis</i>	SE
Small Yellow Lady's Slipper	<i>Cypripedium calceolus</i>	SE
Speckled Alder	<i>Alnus rugosa</i>	SE
Spotted Coral-Root Orchid	<i>Corallorhiza maculata</i>	ST
Star-Flower	<i>Trientalis borealis</i>	ST
Sullivantia	<i>Sullivantia renifolia</i>	ST
Sweetfern	<i>Comptonia peregrina</i>	ST
Torrey Bulrush	<i>Scirpus torreyi</i>	SE
Tubercled Orchid	<i>Platanthera flava</i> var. <i>herbiola</i>	SE
Vasey's Rush	<i>Juncus vaseyi</i>	SE
Water-Pennywort	<i>Hydrocotyle ranunculoides</i>	SE
White Lady's Slipper	<i>Cypripedium candidum</i>	ST
Woolly Milkweed	<i>Asclepias lanuginosa</i>	SE
Yellow Birch	<i>Betula alleghaniensis</i>	SE
Yellow Monkey Flower	<i>Mimulus glabratus</i>	SE
Mussels:		
Butterfly	<i>Ellipsaria lineolata</i>	ST
Ebonysell	<i>Fusconaia ebena</i>	ST
Elephantear	<i>Elliptio crassidens</i>	ST
Fat Pocketbook	<i>Potamilus capax</i>	FE, SE
Higgins Eye	<i>Lampsilis higginsii</i>	FE, SE
Rainbow	<i>Villosa iris</i>	SE
Salamander Mussel	<i>Simpsonia ambigua</i>	SE
Sheepnose	<i>Plethobasus cyphus</i>	SE
Slippershell Mussel	<i>Alasmodonta viridis</i>	SE
Snuffbox	<i>Epioblasma triquetra</i>	SE
Spectaclecase	<i>Cumberlandia monodonta</i>	SE
Spike	<i>Elliptio dilatata</i>	ST
Winged Mapleleaf	<i>Quadrula fragosa</i>	FE, SE
Insects:		
Cobweb Skipper	<i>Hesperia metea</i>	ST
Melissa Blue	<i>Lycaeides Melissa</i>	FE
Ottoe Skipper	<i>Hesperia ottoe</i>	ST

**Appendix M.** Threatened and Endangered Species in the Illinois portion  
of the Rock River Basin

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status<sup>1</sup></b>
Fish:		
Blackchin Shiner	<i>Notropis heterodon</i>	ST
Blacknose Shiner	<i>Notropis heterolepis</i>	SE
Iowa Darter	<i>Etheostoma exile</i>	SE
Lake Sturgeon	<i>Acipenser fulvescens</i>	SE
Longnose Sucker	<i>Catostomus catostomus</i>	ST
Pallid Shiner	<i>Hybopsis amnis</i>	SE
Weed Shiner	<i>Notropis texanus</i>	SE
Western Sand Darter	<i>Ammocrypta clara</i>	SE
Reptiles:		
Illinois Mud Turtle	<i>Kinosternon flavescens</i>	SE
Western Hognose Snake	<i>Heterodon nasicus</i>	ST
Birds:		
American Bittern	<i>Botaurus lentiginosus</i>	SE
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FT, SE
Barn Owl	<i>Tyto alba</i>	SE
Bewick's Wren	<i>Thryomanes bewickii</i>	SE
Black Rail	<i>Laterallus jamaicensis</i>	SE
Black Tern	<i>Chilidonias niger</i>	SE
Black-Crowned Night-Heron	<i>Nycticorax nycticorax</i>	SE
Brown Creeper	<i>Certhia americana</i>	ST
Common Moorhen	<i>Gallinula chloropus</i>	ST
Common Tern	<i>Sterna hirundo</i>	SE
Double-Crested Cormorant	<i>Phalarocorax auritus</i>	ST
Forster's Tern	<i>Sterna forsteri</i>	SE
Great Egret	<i>Ardea albus</i>	ST
Henslow's Sparrow	<i>Ammodramus henslowii</i>	SE
King Rail	<i>Rallus elegans</i>	ST
Least Bittern	<i>Ixobrychus exilis</i>	SE
Little Blue Heron	<i>Egretta caerulea</i>	SE
Loggerhead Shrike	<i>Lanius ludovicianus</i>	ST
Long-Eared Owl	<i>Asio otus</i>	SE
Northern Harrier	<i>Circus cyaneus</i>	SE

**Appendix M.** Threatened and Endangered Species in the Illinois portion  
of the Rock River Basin

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status<sup>1</sup></b>
Birds:		
Osprey	<i>Pandion haliaetus</i>	SE
Peregrine Falcon	<i>Falco peregrinus</i>	FE, SE
Pied-Billed Grebe	<i>Podilymbus podiceps</i>	ST
Red-Shouldered Hawk	<i>Buteo lineatus</i>	ST
Sandhill Crane	<i>Grus canadensis</i>	ST
Sharp-Shinned Hawk	<i>Accipiter striatus</i>	SE
Short-Eared Owl	<i>Asio flammeus</i>	SE
Snowy Egret	<i>Egretta thula</i>	SE
Swainson's Hawk	<i>Buteo swainsoni</i>	SE
Upland Sandpiper	<i>Bartramia longicauda</i>	SE
Veery	<i>Catharus fuscescens</i>	ST
Wilson's Phalarope	<i>Phalaropus tricolor</i>	SE
Yellow Rail	<i>Coturnicops noveboracensis</i>	SE
Yellow-Crowned Night-Heron	<i>Nycticorax violaceus</i>	ST
Yellow-Headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	SE
Mammals:		
Bobcat	<i>Lynx rufus</i>	ST
River Otter	<i>Lontra canadensis</i>	ST

<sup>1</sup>SE=state endangered; ST=state threatened; FE=federally endangered; FT=federally threatened.

Source: Illinois Department of Natural Resources, 1998<sup>1</sup>, 1998<sup>2</sup>, 1998<sup>3</sup>, 2002.

## **Appendix N. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05435000 CEDAR CREEK NEAR WINSLOW, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°28'00", Longitude 89°50'02" NAD27,

Stephenson County, Illinois , Hydrologic Unit 07090003

##### **DRAINAGE AREA**

1.31 square miles

##### **GAGE**

Datum of gage is 912.57 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1952-06-13	1976-03-04	25
-----------------	------------	------------	----

Daily streamflow	1951-03-01	1971-09-30	7519
------------------	------------	------------	------

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USCE 05435500 PECATONICA RIVER AT FREEPORT, IL (CORPS)**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°18'10", Longitude 89°37'10" NAD27,

Stephenson County, Illinois , Hydrologic Unit 07090003

##### **GAGE**

Datum of gage is 743.18 feet above sea level NGVD29.

##### **SITE TYPE:**

Meteorological

##### **AVAILABLE DATA:**

Data TypeBegin DateEnd DateCount

Daily streamflow 1914-09-112003-09-3032527

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05435500 PECATONICA RIVER AT FREEPORT, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°18'10", Longitude 89°37'10" NAD27,

Stephenson County, Illinois , Hydrologic Unit 07090003

##### **DRAINAGE AREA**

1,326.00 square miles

##### **GAGE**

Datum of gage is 743.18 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1914-09-16	2004-05-29	91
-----------------	------------	------------	----

Daily streamflow	1914-09-11	2004-09-30	32893
------------------	------------	------------	-------

Water Quality Samples	1970-10-06	1997-04-29	264
-----------------------	------------	------------	-----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437000 PECATONICA RIVER AT SHIRLAND, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°26'17", Longitude 89°10'29" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090003

##### **DRAINAGE AREA**

2,550.00 square miles

##### **GAGE**

Datum of gage is 711.79 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1937-03-00	1971-02-	1933
-----------------	------------	----------	------

Daily streamflow	1939-10-01	1958-09-30	6940
------------------	------------	------------	------

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team



## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437050 PECATONICA RIVER NR SHIRLAND, ILL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°26'17", Longitude 89°10'29" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090003

##### **DRAINAGE AREA**

2,556.0 square miles; Contributing drainage area  
.0 square miles,

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

Peak streamflow 2003-05-162004-06-042

Daily streamflow 2002-07-312004-09-30793

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437500 ROCK RIVER AT ROCKTON, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 42°26'55", Longitude 89°04'11" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090005

##### DRAINAGE AREA

6,363.00 square miles

##### GAGE

Datum of gage is 707.94 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1904-03-22	2004-06-03	76
-----------------	------------	------------	----

Daily streamflow	1903-06-28	2004-09-30	27612
------------------	------------	------------	-------

Water Quality Samples	1974-10-08	1997-03-19	271
-----------------------	------------	------------	-----

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437610 ROCK RIVER AT LATHAM PARK, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Measurements EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 42°22'07", Longitude 89°03'30" NAD83,

Winnebago County, Illinois , Hydrologic Unit 07090005

##### DRAINAGE AREA

6,480.00 square miles; Contributing drainage area

6,480.00 square miles,

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437641 ROCK RIVER AT AUBURN ST AT ROCKFORD**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Measurements EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 42°17'19", Longitude 89°03'55" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090005

##### DRAINAGE AREA

6,528.0 square miles

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05437695 KEITH CREEK AT EIGHTH STREET AT ROCKFORD, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow Water-Quality:  
Discrete samples EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°15'31", Longitude 89°04'44" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

13.40 square miles

##### **GAGE**

Datum of gage is 713.71 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1980-06-07	1986-09-25	7
-----------------	------------	------------	---

Daily streamflow	1979-10-01	1988-09-30	2985
------------------	------------	------------	------

Water Quality Samples	1979-10-01	1984-05-22	48
-----------------------	------------	------------	----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05438500 KISHWAUKEE RIVER AT BELVIDERE, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°15'22", Longitude 88°51'47" NAD27,

Boone County, Illinois , Hydrologic Unit 07090006

##### **DRAINAGE AREA**

538.00 square miles

##### **GAGE**

Datum of gage is 738.34 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

Peak streamflow 1940-06-192004-05-2465

Daily streamflow 1939-10-012004-09-3023742

Water Quality Samples 1974-10-081984-05-2494

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DEKALB, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 41°55'52", Longitude 88°45'34" NAD27,

De Kalb County, Illinois , Hydrologic Unit 07090006

##### DRAINAGE AREA

77.70 square miles

##### GAGE

Datum of gage is 831.88 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

Peak streamflow 1926-02-252004-05-3133

Daily streamflow 1925-10-012004-09-3012054

Water Quality Samples 1979-11-211984-05-1665

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05439500 SOUTH BRANCH KISHWAUKEE RIVER NR FAIRDALE IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 42°06'38", Longitude 88°54'02" NAD27,

De Kalb County, Illinois , Hydrologic Unit 07090006

##### DRAINAGE AREA

387.00 square miles

##### GAGE

Datum of gage is 733.90 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1937-03-00	2004-06-12	66
-----------------	------------	------------	----

Daily streamflow	1939-10-01	2004-09-30	23742
------------------	------------	------------	-------

Water Quality Samples	1974-10-07	2002-09-25	283
-----------------------	------------	------------	-----

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team



## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05440000 KISHWAUKEE RIVER NEAR PERRYVILLE, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 42°11'40", Longitude 88°59'55" NAD27,

Winnebago County, Illinois , Hydrologic Unit 07090006

##### DRAINAGE AREA

1,099.00 square miles

##### GAGE

Datum of gage is 692.13 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1938-01-00	2004-05-24	66
-----------------	------------	------------	----

Daily streamflow	1939-10-01	2004-09-30	23742
------------------	------------	------------	-------

Water Quality Samples	1951-03-19	1997-04-08	288
-----------------------	------------	------------	-----

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05440500 KILLBUCK CREEK NEAR MONROE CENTER, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow Water-Quality:  
Discrete samples EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°05'55", Longitude 89°03'10" NAD27,

Ogle County, Illinois , Hydrologic Unit 07090006

##### **DRAINAGE AREA**

117.00 square miles

##### **GAGE**

Datum of gage is 734.27 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1940-03-04	1980-09-10	41
-----------------	------------	------------	----

Daily streamflow	1939-10-01	1971-10-07	11695
------------------	------------	------------	-------

Water Quality Samples	1980-01-08	1984-05-23	11
-----------------------	------------	------------	----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05440700 ROCK RIVER AT BYRON, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°07'23", Longitude 89°15'21" NAD27,

Ogle County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

7,990.00 square miles; Contributing drainage area

7,990.00 square miles,

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	2001-02-25	2004-06-13	4
-----------------	------------	------------	---

Daily streamflow	2000-10-01	2004-09-30	1461
------------------	------------	------------	------

Water Quality Samples	1977-10-06	1997-04-16	205
-----------------------	------------	------------	-----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05441000 LEAF RIVER AT LEAF RIVER, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°07'40", Longitude 89°23'25" NAD27,

Ogle County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

103.00 square miles

##### **GAGE**

Datum of gage is 685.64 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1938-02-04	1982-03-15	44
-----------------	------------	------------	----

Daily streamflow	1939-10-01	1958-09-30	6940
------------------	------------	------------	------

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05441500 ROCK RIVER AT OREGON, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 42°01'00", Longitude 89°19'44" NAD27,

Ogle County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

8,205.00 square miles

##### **GAGE**

Datum of gage is 659.24 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1937-02-00	1949-02-25	11
-----------------	------------	------------	----

Daily streamflow	1939-10-01	1949-09-30	3653
------------------	------------	------------	------

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05442000 KYTE RIVER NEAR FLAGG CENTER, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow Water-Quality:  
Discrete samples EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°56'15", Longitude 89°09'22" NAD27,

Ogle County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

116.00 square miles

##### **GAGE**

Datum of gage is 750.00 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1937-02-00	1951-02-2013	
-----------------	------------	--------------	--

Daily streamflow	1939-10-01	1951-09-30	4383
------------------	------------	------------	------

Water Quality Samples	1981-11-04	1982-01-203	
-----------------------	------------	-------------	--

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05443000 ROCK RIVER ABOVE SINNISSIPPI DAM AT ROCK FALLS, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Measurements EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 41°47'14", Longitude 89°40'35" NAD83,

Whiteside County, Illinois , Hydrologic Unit 07090005

##### DRAINAGE AREA

8,740 square miles; Contributing drainage area

8,740 square miles,

##### GAGE

Datum of gage is 630.00 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05443500 ROCK RIVER AT COMO, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°46'58", Longitude 89°44'59" NAD27,

Whiteside County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

8,753.00 square miles

##### **GAGE**

Datum of gage is 606.83 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

Peak streamflow 1915-02-252004-06-0185

Daily streamflow 1914-10-012004-09-3030094

Water Quality Samples 1970-10-061997-04-22235

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team



## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05444000 ELKHORN CREEK NEAR PENROSE, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 41°54'10", Longitude 89°41'46" NAD27,

Whiteside County, Illinois , Hydrologic Unit 07090005

##### DRAINAGE AREA

146.00 square miles

##### GAGE

Datum of gage is 657.85 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1938-06-00	2004-05-31	66
-----------------	------------	------------	----

Daily streamflow	1939-10-01	2004-09-30	23742
------------------	------------	------------	-------

Water Quality Samples	1966-09-12	1997-04-22	332
-----------------------	------------	------------	-----

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05445500 ROCK CREEK NEAR MORRISON, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°49'50", Longitude 89°58'00" NAD27,

Whiteside County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

158.00 square miles

##### **GAGE**

Datum of gage is 620.41 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1937-06-00	1971-06-01	33
-----------------	------------	------------	----

Daily streamflow	1942-10-01	1958-09-30	5844
------------------	------------	------------	------

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05446000 ROCK CREEK AT MORRISON, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow Water-Quality:  
Discrete samples EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°47'50", Longitude 89°58'20" NAD27,

Whiteside County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

164.00 square miles

##### **GAGE**

Datum of gage is 606.91 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Peak streamflow	1940-08-13	2000-06-13	55
-----------------	------------	------------	----

Daily streamflow	1940-04-01	1986-09-30	4200
------------------	------------	------------	------

Water Quality Samples	1977-10-19	1984-06-29	71
-----------------------	------------	------------	----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05446500 ROCK RIVER NEAR JOSLIN, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°33'35", Longitude 90°10'55" NAD27,

Rock Island County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

9,549.00 square miles

##### **GAGE**

Datum of gage is 564.06 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1940-08-30	2004-06-03	65
-----------------	------------	------------	----

Daily streamflow	1939-10-01	2004-09-30	23742
------------------	------------	------------	-------

Water Quality Samples	1966-10-03	1997-04-21	709
-----------------------	------------	------------	-----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05447000 GREEN RIVER AT AMBOY, IL**

Available data for this site   Site home page site map Surface-water:  
Daily streamflow Surface-water: Daily streamflow statistics  
Surface-water: Monthly streamflow statistics Surface-water: Annual  
streamflow statistics Surface-water: Peak streamflow EPA Surf your  
Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°42'35", Longitude 89°19'28" NAD27,

Lee County, Illinois , Hydrologic Unit 07090007

##### **DRAINAGE AREA**

201.00 square miles

##### **GAGE**

Datum of gage is 724.14 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data TypeBegin DateEnd DateCount

Peak streamflow 1940-03-031982-07-0742

Daily streamflow 1939-10-011958-09-306940

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05447500 GREEN RIVER NEAR GENESEO, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 41°29'20", Longitude 90°09'27" NAD27,

Henry County, Illinois , Hydrologic Unit 07090007

##### DRAINAGE AREA

1,003.00 square miles

##### GAGE

Datum of gage is 577.66 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1935-10-10	2004-05-31	69
-----------------	------------	------------	----

Daily streamflow	1936-03-01	2004-09-30	25051
------------------	------------	------------	-------

Water Quality Samples	1966-10-03	1997-04-21	376
-----------------------	------------	------------	-----

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05448000 MILL CREEK AT MILAN, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### **Site Description**

##### **LOCATION**

Latitude 41°26'32", Longitude 90°33'21" NAD27,

Rock Island County, Illinois , Hydrologic Unit 07090005

##### **DRAINAGE AREA**

62.40 square miles

##### **GAGE**

Datum of gage is 565.23 feet above sea level NGVD29.

##### **SITE TYPE:**

Stream / River

##### **AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
-----------	------------	----------	-------

Real-time	This is a real-time site		
-----------	--------------------------	--	--

Peak streamflow	1936-06-00	2004-05-30	63
-----------------	------------	------------	----

Daily streamflow	1939-10-01	2004-09-30	22931
------------------	------------	------------	-------

Water Quality Samples	1966-10-10	1984-05-08	158
-----------------------	------------	------------	-----

##### **OPERATION:**

Record for this site is maintained by the USGS Illinois Water Science Center

##### **CONTACT INFORMATION**

Email questions about this site to Water Webserver Team

## **Appendix N Continued. USGS Gauging Stations in the Illinois Portion of the Rock River Basin.**

### **USGS 05543500 ILLINOIS RIVER AT MARSEILLES, IL**

Available data for this site   Site home page site map Real-time  
Recent daily Surface-water: Daily streamflow Surface-water: Daily  
streamflow statistics Surface-water: Monthly streamflow statistics  
Surface-water: Annual streamflow statistics Surface-water: Peak  
streamflow Surface-water: Measurements Water-Quality: Discrete samples  
EPA Surf your Watershed

#### Site Description

##### LOCATION

Latitude 41°19'37", Longitude 88°43'03" NAD27,

La Salle County, Illinois , Hydrologic Unit 07120005

##### DRAINAGE AREA

8,259.00 square miles

##### GAGE

Datum of gage is 452.91 feet above sea level NGVD29.

##### SITE TYPE:

Stream / River

##### AVAILABLE DATA:

Data TypeBegin DateEnd DateCount

Real-timeThis is a real-time site

Peak streamflow 1892-05-062004-06-13108

Daily streamflow 1919-10-012004-09-3031047

Water Quality Samples 1970-10-082003-08-191396

##### OPERATION:

Record for this site is maintained by the USGS Illinois Water Science  
Center

##### CONTACT INFORMATION

Email questions about this site to Water Webserver Team

NWIS Site Information for USA: Site Inventory

<http://waterdata.usgs.gov/nwis/inventory?>

Retrieved on 2005-05-26 15:40:17 EDT

Department of the Interior, U.S. Geological Survey



## **Appendix O. Illinois Water Quality Standards Applicable in the Rock River Basin – Surface And Groundwater**

The Illinois Pollution Control Board (IPCB) promulgates water quality standards in Illinois. Two Sections of 35 Illinois Administrative Code (IAC), Section 302, Water Quality Standards and Section 303, Water Use Designations and Site Specific Water Quality Standards contain the standards applicable to lakes and streams. Two other sections, Section 620, Groundwater Quality Standards, and Section 611, Drinking Water Standards contain standards for groundwater and drinking water supplies. Procedures to be followed in using water quality standards to set NPDES permit limits are found in Section 309. Other implementation procedures are found in Agency Rules.

Section 4 of the Environmental Protection Act (EP Act) designates the Illinois EPA as the water pollution control agency for the state for all purposes of the Clean Water Act and the Safe Drinking Water Act. The Illinois Groundwater Protection Act (IGPA) and the EP Act set out the authorities for groundwater programs.. The Illinois EPA carries out water quality standards development and review activities. The process for development of water quality standards (generic and statewide applicability), is primarily the responsibility of the Standards Unit. Actual rulemaking rests with the IPCB through the public hearing process pursuant to Title VII of the EP Act.

Water quality standards define the water quality goals for watersheds of the state and serve as the regulatory basis for establishing treatment controls and protection strategies. The underlying framework of the water protection program in Illinois is the protection and preservation of existing and potential uses of the state's water resources. Thus, the approach to water quality standards focuses on designation of uses to be protected and water quality conditions necessary to accomplish that end.

Designated uses are those uses specified in water quality standards for each lake, river, stream, and groundwater resource. In designating uses for a waterbody, the Illinois Pollution Control Board takes into consideration the use and value of the waterbody for public water supply, for propagation of fish, shellfish, and wildlife, and for recreational, agricultural, industrial, and navigational purposes. The IPCB has classified waterbodies into four designated use categories as described below. Each designated use category has a specific set of water quality standards to protect for that use. States are required to review and revise water quality standards as needed every three years.

### **Surface Water Designated Use Categories**

*General Use* — This designated use provides for the protection of indigenous aquatic life, primary (e.g., swimming) and secondary (e.g., boating) contact recreation, agricultural, and industrial uses. Water quality standards designed to protect these general uses cover the majority of Illinois streams and lakes.

*Public and Food Processing Water Supplies* — This designated use provides for the protection of potable water supplies and water used for food processing purposes.

These waters have a somewhat stricter set of water quality standards that apply at any point from which water is withdrawn for these uses.

*Secondary Contact And Indigenous Aquatic Life Use* — This designated use is intended for those waters not suited for general use activities but are limited to secondary (e.g., boating) contact uses and capable of supporting indigenous aquatic life limited by the physical configuration of the waterbody, characteristics and origin of the water and the presence of contaminants in amounts that do not exceed these water quality standards. This is the least stringent designated use and applies only to a certain set of canals and streams in the Chicago area.

*Lake Michigan* — This designated use applies to the Illinois portion of Lake Michigan and includes the most stringent water quality standards.

### Groundwater Designated Use Categories

Groundwater in Illinois falls into one of the following four classes:

*Class I: Potable Resource Groundwater* — This designated use provides for the protection current or future sources of drinking water. Potable resource groundwater is defined by the thickness of geologic materials, existing water supply wells, or hydraulic conductivity of the aquifer.

*Class II: General Resource Groundwater* — General resource groundwater includes groundwater which does not meet the provisions of the other classes.

*Class III: Special Resource Groundwater* — Special Resource Groundwater is groundwater that is determined by the IPCB to be: demonstrably unique (e.g., irreplaceable sources of groundwater) and suitable for application of a water quality standard more stringent than the otherwise applicable water quality standard; or is vital for a particularly sensitive ecological system.

Groundwater that contributes to a dedicated nature preserve (DNP) that is listed by the Illinois EPA and is adopted by the Board can also be designated as Class III groundwater. Groundwater contributing to the DNPs at: Parker Fen; Boone Creek Fen; Spring Hollow; Lee Miglin Savanna; and Amberin Ash Ridge have been designated as Class III: Special Resource Groundwater in the adjacent Upper Fox and Kishwaukee River Basins.

*Class IV: Special Resource Groundwater* — Other groundwater recognizes certain groundwater limitations from naturally occurring sources of total dissolved solids, aquifers under the Underground Injection Control Program, exempt aquifers, zones of attenuation around landfills. In addition, it includes zones around coal mine refuse disposal areas, impoundments at coal preparation plants and coal combustion waste areas outside of areas where the overburden has been removed.

### Regulated Recharge Areas

The IGPA of 1987 established a definition of a regulated recharge area that describes "...a compact geographic area, as determined by the Board [Illinois Pollution Control Board], the geology of which renders a potable resource groundwater particularly susceptible to contamination." A regulated recharge area is an area where enhanced regulations are imposed by the IPCB to reduce the potential for groundwater contamination, as provided for under the EP Act. The Illinois EPA may propose regulations to the IPCB that would establish the boundaries of a regulated recharge area. No regulated recharge areas have been established in the Basin.

### Class III: Special Resource Groundwater Designations

Special Resource Groundwater is groundwater that is determined by the Illinois Pollution Control Board (Board) to be: demonstrably unique (e.g., irreplaceable sources of groundwater) and suitable for application of a water quality standard more stringent than the otherwise applicable water quality standard; or is vital for a particularly sensitive ecological system.

Groundwater that contributes to a dedicated nature preserve (DNP) that is listed by the Illinois EPA and is adopted by the Board can also be designated as Class III groundwater. Groundwater contributing to the DNPs at: Parker Fen; Boone Creek Fen; Spring Hollow; Lee Miglin Savanna; and Amberin Ash Ridge have been designated as Class III: Special Resource Groundwater in the adjacent Upper Fox and Kishwaukee River Basins.

For more information on water quality standards, contact the Illinois EPA, Bureau of Water at 217/558-2012.

# Illinois Surface Water Quality Standards<sup>1</sup> Applicable in the Rock River Basin.

<u>PARAMETER</u>	<u>UNITS</u>	<u>GENERAL USE</u>	<u>PUBLIC AND FOOD PROCESSING WATER SUPPLY</u>
pH	SU	6.5 minimum 9.0 maximum	6.5 minimum 9.0 maximum
Dissolved Oxygen	mg/L	5.0 minimum	5.0 minimum
Arsenic	µg/L	(2)	50
Barium	µg/L	5000	1000
Boron	µg/L	1000	1000
Cadmium	µg/L	(2)	10
Chloride	mg/L	500	250
Chromium (Total)	µg/L	---	50
Chromium (Trivalent)	µg/L	(2)	(2)
Chromium (Hexavalent)	µg/L	(2)	(2)
Copper	µg/L	(2)	(2)
Cyanide	mg/L	(2)	(2)
Fluoride	mg/L	1.4	1.4
Iron (Total)	µg/L	---	---
Iron (Dissolved)	µg/L	1000	300
Lead	µg/L	(2)	50
Manganese	µg/L	1000	150
Mercury	µg/L	(2)	(2)
Nickel	µg/L	(2)	(2)
Phenols	µg/L	100	1.0
Selenium	µg/L	1000	10
Silver	µg/L	5.0	5.0
Sulfate	mg/L	500	250
Total Dissolved Solids	mg/L	1000	500
Total Residual Chlorine	µg/L	(2)	(2)
Zinc	µg/L	(2)	(2)
Fecal Coliform Bacteria			
May-Oct.	count/100 mL	200 <sup>(4)</sup>	2000 <sup>(4)</sup>
Nov.-April	count/100 mL	---	2000 <sup>(4)</sup>

## Illinois Surface Water Quality Standards<sup>1</sup> Applicable in the Rock River Basin.

<u>PARAMETER</u>	<u>UNITS</u>	<u>GENERAL USE</u>	<u>PUBLIC AND FOOD PROCESSING WATER SUPPLY</u>
Ammonia Nitrogen (total)	mg/L	15 <sup>(5)</sup>	---
Nitrate Nitrogen	mg/L	---	10.0
Oil and Grease	mg/L	---	0.1
Total Phosphorus	mg/L	0.05 <sup>(6)</sup>	---
Aldrin	µg/L	---	1.0
Dieldrin	µg/L	---	1.0
Endrin	µg/L	---	0.2
Total DDT	µg/L	---	50.0
Total Chlordane	µg/L	---	3.0
Methoxychlor	µg/L	---	100.0
Toxaphene	µg/L	---	5.0
Heptachlor	µg/L	---	0.1
Heptachlor epoxide	µg/L	---	0.1
Lindane	µg/L	---	4.0
Parathion	µg/L	---	100.0
2,4-D	µg/L	---	100.0
Silvex	µg/L	---	10.0
Benzene	µg/L	(2)	(2)
Ethylbenzene	µg/L	(2)	(2)
Toluene	µg/L	(2)	(2)
Xylene(s) (total)	µg/L	(2)	(2)

mg/L = milligrams per liter

µg/L = micrograms per liter

1. 35 IL Adm. Code, Part 302 (2002).
2. Acute and Chronic Standards Apply (see below).
3. (---) Means no numeric standard specified.
4. Waterbody reaches physically unsuited for primary contact uses and not found in urban areas or parks may be designated as unprotected. The 200/100 mL fecal coliform bacteria standard is a geometric mean.
5. The allowable concentration varies in accordance with water temperature and pH values. 15 mg/L is the maximum total ammonia nitrogen value allowed. In general, as both temperature and pH decrease, the allowable value of total ammonia nitrogen increases. For example, when the pH is 8.0 and the temperature is 20 degrees C, the acute standard is 8.4 mg/L, the chronic standard is 1.7 mg/L and the subchronic standard is 4.3 mg/L. See 35 IL Adm. Code, Section 302.212 for the formulae by which the standards are calculated.
6. Standard applies to certain lakes and reservoirs and at the point of entry of any stream to these lakes and reservoirs.

**Illinois Surface Water Quality Standards<sup>1</sup> Applicable in the Rock River Basin. Acute and Chronic Illinois General Use Water Quality Standards<sup>(1)</sup>**

<b>Parameter</b>	<b>Units</b>	<b>Acute standard<sup>(2)</sup></b>	<b>Chronic Standard<sup>(3)</sup></b>	<b>Acute<sup>(7)</sup> Conversion Factor</b>	<b>Chronic<sup>(7)</sup> Conversion Factor</b>
<b>Arsenic (dissolved)</b>	µg/L	360	190	1.0	1.0
<b>Cadmium (dissolved)</b>	µg/L	$\exp[A+B \ln(H)]$ A = -2.918 B = 1.128	$\exp[A+B \ln(H)]$ A = -3.490 B = 0.7852	$[1.138672 - [(1nH) (0.041838)]]$	$\{1.101672 - [(1nH) (0.041838)]\}$
<b>Chlorine (total residual)</b>	µg/L	19	11	-	-
<b>Chromium (total hexavalent)</b>	µg/L	16	11	-	-
<b>Chromium (dissolved trivalent)</b>	µg/L	$\exp[A+B \ln(H)]$ A = 3.688 B = 0.819	$\exp[A+B \ln(H)]$ A = 1.561 B = 0.819	0.316	0.860
<b>Copper (dissolved)</b>	µg/L	$\exp[A+B \ln(H)]$ A = -1.464 B = 0.9422	$\exp[A+B \ln(H)]$ A = -1.465 B = 0.8545	0.960	0.960
<b>Cyanide (weak acid dissociable or available cyanide)<sup>(4)</sup></b>	µg/L	22	5.2	-	-
<b>Lead (dissolved)</b>	µg/L	$\exp[A+B \ln(H)]$ A = -1.301 B = 1.273	$\exp[A+B \ln(H)]$ A = -2.863 B = 1.273	$\{1.46203 - [1nH] (0.145712)\}$	$\{1.46203 - [1nH] (0.145712)\}$
<b>Nickel (dissolved)</b>	µg/L	$\exp[A+B \ln(H)]$ A = 0.5173 B = 0.8460	$\exp[A+B \ln(H)]$ A = -2.286 B = 0.8460	0.998	0.997
<b>Zinc (dissolved)</b>	µg/L	$\exp[A+B \ln(H)]$ A = 0.9035 B = 0.8473	$\exp[A+B \ln(H)]$ A = -0.8165 B = 0.8473	0.978	0.986
<b>Mercury (total)<sup>(5)</sup></b>	µg/L	2.6	1.3	-	-
<b>Benzene<sup>(6)</sup></b>	µg/L	4,200	860	-	-
<b>Ethylbenzene</b>	µg/L	150	14	-	-
<b>Toluene</b>	µg/L	2,000	600	-	-
<b>Xylene(s) (total)</b>	µg/L	920	360	-	-

Where: Exp(x) = base of natural logarithms raised to x power

ln(H) = natural logarithm of hardness of the receiving water in mg/L

1. 35 IL Adm. Code, Part 302 (2002).
2. Not to be exceeded except where a zone of initial dilution is granted.
3. Not to be exceeded by the average of at least four consecutive samples collected over any period of at least four days except where a mixing zone is granted.
4. American Public Health Association. 1998. Standard Methods for the Examination of Water and Wastewater. 20<sup>th</sup> edition. American Public Health Association, American Water Works Association, Water Environment Federation. 4500-CN 1. STORET No. 718. Available cyanide is determined using USEPA Method OIA 1677.
5. Human health standard is 0.012 µg/L.
6. Human health standard is 310 µg/L.
7. The conversion factors are multiplied by the acute or chronic water quality standards given by the formula or value in the preceding columns

## Class I Groundwater Quality Standards

Inorganic Constituents*		Organic Constituents	
Antimony	0.006 mg/L	Alachlor	0.002 mg/L
Arsenic	0.05 mg/L	Aldicarb	0.003 mg/L
Barium	2 mg/L	Atrazine	0.003 mg/L
Beryllium	0.004 mg/L	Benzene	0.005 mg/L
Boron	2 mg/L	Benzo(a)pyrene	0.0002 mg/L
Cadmium	0.005 mg/L	Carbofuran	0.04 mg/L
Chloride	200 mg/L	Carbon Tetrachloride	0.005 mg/L
Chromium	0.1 mg/L	Chlordane	0.002 mg/L
Cobalt	1 mg/L	Dalapon	0.2 mg/L
Copper	0.65 mg/L	Dichloromethane	0.005 mg/L
Cyanide	0.2 mg/L	Di(2-ethylhexyl)phthalate	0.006 mg/L
Fluoride	4.0 mg/L	Dinoseb	0.007 mg/L
Iron	5 mg/L	Endothall	0.1 mg/L
Lead	0.0075 mg/L	Endrin	0.002 mg/L
Manganese	0.15 mg/L	Ethylene Dibromide	0.00005 mg/L
Mercury	0.002 mg/L	Heptachlor	0.0004 mg/L
Nickel	0.1 mg/L	Heptachlor Epoxide	0.0002 mg/L
Nitrate as N	10 mg/L	Hexachlorocyclopentadiene	0.05 mg/L
Radium-226	20 (pCi/L)	Lindane (Gamma-Hexachlorocyclohexane)	0.0002 mg/L
Radium-228	20 pCi/L	2,4-D	0.07 mg/L
Selenium	0.05 mg/L	ortho-Dichlorobenzene	0.6 mg/L
Silver	0.05 mg/L	para-Dichlorobenzene 0	0.075 mg/L
Sulfate		1,2,-Dibromo-3-Chloropropane	0.0002 mg/L
Thallium	0.002 mg/L	1,2-Dichloroethane	0.005 mg/L
Total Dissolved Solids (TDS)	1,200 mg/L	1,1-Dichloroethylene	0.007 mg/L
Zinc	5 mg/L	cis-1,2-Dichloroethylene	0.07 mg/L
		trans-1,2-Dichloroethylene	0.1 mg/L
<b>Complex Organic Chemical Mixtures</b>		1,2-Dichloropropane	0.005 mg/L
Benzene	0.005 mg/L	Ethylbenzene	0.7 mg/L
BETX	11.705 mg/L	Methoxychlor	0.04 mg/L
		Monochlorobenzene	0.1 mg/L
		Methyl Tert Butyl Ether (MTBE)	0.07 mg/L
<b>pH*</b>		Pentachlorophenol	0.001 mg/L
pH	range of 6.5 - 9.0 units	Phenols	0.1 mg/L
		Picloram	0.5 mg/L
<b>Beta Particle and Photon Radioactivity *</b>		Polychlorinated Biphenyls (PCB's) (as decachloro-biphenyl)	0.0005 mg/L
Man-made radionuclides	4 mrem/year	Simazine	0.004 mg/L
Tritium	20,000 pCi/L	Styrene	0.1 mg/L
Strontium-90	8 pCi/L	2,4,5-TP (Silvex)	0.05 mg/L
Reporting units, mg/L (milligrams per liter), µg/L (micrograms per liter), pCi/L (picocuries per liter).		Tetrachloroethylene	0.005 mg/L
		Toluene	1 mg/L
		Toxaphene	0.003 mg/L
		1,1,1-Trichloroethane	0.2 mg/L
		1,1,2-Trichloroethane	0.005 mg/L
		1,2,4-Trichlorobenzene	0.07 mg/L
		Trichloroethylene	0.005 mg/L
		Vinyl Chloride	0.002 mg/L
		Xylenes	10 mg/L
* Except due to natural causes or as provided in Section 620.450			

**Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (303(d) listed waters are in red).**

Lower Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Code	Source Code
709000507	PH 01	Elkhorn Cr.	12.41	Aquatic Life	Full		
				Fish Consumption	Full		
	PH 14	Elkhorn Cr.	4.51	Aquatic Life	Full		
				Fish Consumption	Full		
	PH 16	Elkhorn Cr.	16.69	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Nonsupport	Pathogens	Unknown
	PH 17	Elkhorn Cr.	20.64	Aquatic Life	Partial	Total Nitrogen, Suspended Solids	Agriculture-Crop Production, Pasture Land
				Fish Consumption	Full		
	PHA	Spring Cr.	9.76	Aquatic Life	Not Assessed		
	PHB 01	Sugar Cr.	13.34	Aquatic Life	Partial	Unknown	
	PHC	Jordan Cr.	6.06	Aquatic Life	Not Assessed		
	PHE 01	Buffalo Cr.	7.72	Aquatic Life	Full		
	PHE-A1	Buffalo Cr.	3.74	Aquatic Life	Full		
	PHE-C1	Buffalo Cr.	1.91	Aquatic Life	Partial	Phosphorus (guideline)	Municipal Point Sources
	PHG	Eagle Cr.	7.56	Aquatic Life	Not Assessed		
	PHH	Middle Cr.	8.47	Aquatic Life	Not Assessed		
	PHI 01	Fivemile Cr.	5.80	Aquatic Life	Full		
	PHJ	W. Fk. Elkhorn Cr.	5.49	Aquatic Life	Not Assessed		
	RPZE	LAKEVIEW LAKE	7	Aquatic Life	Partial	Siltation,Native Aquatic Plants	Agriculture-Crop Related Sources, Crop Production, Urban Runoff, Storm Sewers, Streambank Modification/ Stabilization, Contaminated Sediments
				Primary Contact	Nonsupport	Unknown	
				Secondary Contact	Nonsupport	Unknown	
709000508	PZZO	Coon Cr.	23.22	Aquatic Life	Not Assessed		



## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Lower Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	HUC 10 Watershed	Segment ID
709000509	PE 02	Rock Cr.	43.10	Aquatic Life	Full		
	PE 05	Rock Cr.	9.04	Aquatic Life	Full		
				Primary Contact	Partial	Pathogens	Unknown
	PEB	French Cr.	8.39	Aquatic Life	Not Assessed		
	PEC	Little Rock Cr.	12.80	Aquatic Life	Not Assessed		
	PED	Little Spring Cr.	5.71	Aquatic Life	Not Assessed		
	PEE 01	Otter Cr.	14.71	Aquatic Life	Partial	Total Nitrogen	Agriculture-Crop Production, Pasture Land
	RPF	CARLTON LAKE	75.4	Aquatic Life	Full		
				Primary Contact	Full		
				Secondary Contact (Recreation)	Partial	Phosphorus, Habitat Alteration, Excessive Algae	Agriculture-Crop Related Sources,Crop Production, Forest/ Grassland
706000510	P 04	Rock R.	30.31	Aquatic Life	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
				Primary Contact	Full		
	P 06*	Rock R.	8.57	Aquatic Life	Full		
				Primary Contact	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
	P 24	Rock R.	25.18	Aquatic Life	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
	PGA	Ellsworth Cr.	12.41	Aquatic Life	Not Assessed		
	PZN	Deer Cr.	8.89	Aquatic Life	Not Assessed		
	PZO	Ramsey Slough	2.22	Aquatic Life	Not Assessed		
709000511	PD	Meredosia Ditch	4.78	Aquatic Life	Not Assessed		
	PDA	Mineral Spring Cr.	8.14	Aquatic Life	Not Assessed		
	PZD	Zuma Cr.	12.74	Aquatic Life	Not Assessed		
	PZG	Canoe Cr.	6.76	Aquatic Life	Not Assessed		
709000512	PA 01	Mill Cr.	20.30	Aquatic Life	Partial	Unknown	Unknown
	PAA	Mud Cr.	4.27	Aquatic Life	Not Assessed		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Lower Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	HUC 10 Watershed	Segment ID
709000513	P 25	Rock R.	15.98	Aquatic Life	Partial	Unknown	
				Fish Consumption	Partial	PCB, Mercury	Unknown
	PZA	Case Cr.	10.48	Aquatic Life	Not Assessed		
	PZB 01	Coal Cr.	12.57	Aquatic Life	Partial	Total Nitrogen	Agriculture-Crop Production
	PZC	Shaffer Cr.	5.44	Aquatic Life	Not Assessed		

Upper Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Code	Source Code
709000121	P 09	Rock R.	5.65	Aquatic Life	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
709000501	P 15	Rock R.	21.19	Aquatic Life	Full		
				Primary Contact	Not Supporting	Pathogen	Unknown
				Fish Consumption	Partial	PCB, Mercury	
	PSA	S. Fk. Kent Cr.	8.90	Aquatic Life	Not Assessed		
	PSB 01	N. Fork Kent Cr.	11.40	Aquatic Life	Full		
	PT	S. Kinnikinnick Cr.	12.91	Aquatic Life	Not Assessed		
	PU	N. Kinnikinnick Cr.	13.37	Aquatic Life	Full		
	PV 01	Dry Cr.	8.53	Aquatic Life	Partial	Unknown	Unknown
	PZZG	Spring Cr. North	8.13	Aquatic Life	Not Assessed		
	PZZH	Mud Cr. North	4.36	Aquatic Life	Not Assessed		
	PZZI	Willow Cr.	10.46	Aquatic Life	Not Assessed		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Upper Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Code	Source Code
709000501	RPC	PIERCE LAKE	162.2	Aquatic Life	Full		Agriculture-Crop Production, Hydrologic/ Habitat Modification, Flow Regulation/Modification, Waterfowl, Forest/Grassland
				Primary Contact	Partial	Suspended Solids, Excessive Algae, Phosphorus (guideline)	
				Secondary Contact	Partial	Phosphorus, Habitat Alteration, Suspended Solids	
				Fish Consumption	Full		
709000502	PN 01	Leaf R.	3.76	Aquatic Life	Full		
				Fish Consumption	Full		
	PN 02	Leaf R.	3.72	Aquatic Life	Full		
				Fish Consumption	Full		
	PN 03	Leaf R.	19.35	Aquatic Life	Full		
				Fish Consumption	Full		
	PNA	Mud Cr.	11.79	Aquatic Life	Full		
709000503	PL 03	Kyte R.	6.82	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Nonsupport	Pathogens	Unknown
	PL 18	Kyte R.	1.33	Aquatic Life	Full		
				Fish Consumption	Full		
	PL 21	Kyte R.	22.26	Aquatic Life	Full		
				Fish Consumption	Full		
	PLB 03	Beach Cr.	3.29	Aquatic Life	Full		
	PLB-C1	Beach Cr.	4.81	Aquatic Life	Partial	Total Nitrogen, Siltation, Dissolved Oxygen, Phosphorus (guideline)	Municipal Point Sources
	PLB-C3	Beach Cr.	1.89	Aquatic Life	Partial	Total Nitrogen	Municipal Point Sources
	PLBA	S. Beach Cr.	2.91	Aquatic Life	Partial	Total Nitrogen	Agriculture-Irrigated Crop Production, Grazing Related Sources-Pasture Land
	PLC 01	Steward Cr.	8.46	Aquatic Life	Full		
	PLD	Honey Cr.	5.57	Aquatic Life	Not Assessed		
	PLE 03	Prairie Cr.	10.41	Aquatic Life	Full		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Upper Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Code	Source Code
709000504	P 14	Rock R.	10.91	Aquatic Life	Full		
				Primary Contact	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
	P 23	Rock R.	7.44	Aquatic Life	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
	P 20*	Rock R.	11.16	Aquatic Life	Full		
				Primary Contact	Full		
				Fish Consumption	Partial	PCB, Mercury	Unknown
	PM	Silver Cr.	6.29	Aquatic Life	Not Assessed		
	PO 01	Mill Cr.	10.67	Aquatic Life	Full		
	PO C1	Mill Cr.	1.91	Aquatic Life	Partial	Dissolved Oxygen, Phosphorus (guideline)	Municipal Point Sources
	POA	Middle Cr.	7.61	Aquatic Life	Full		
	POAA	E. Fk. Mill Cr.	8.78	Aquatic Life	Not Assessed		
	PP 01	Stillman Cr.	14.39	Aquatic Life	Full		
709000505	PPA 01	Black Walnut Cr.	8.65	Aquatic Life	Full		
	PZW	Mud Cr. South	4.41	Aquatic Life	Not Assessed		
	PZZA	Spring Cr.	5.24	Aquatic Life	Not Assessed		
	PJ 01	Pine Cr.	13.32	Aquatic Life	Full		
	PJ 11	Pine Cr.	7.82	Aquatic Life	Full		
	PJBA-C1	Mt. Morris Cr. North	2.71	Aquatic Life	Partial	Phosphorus (guideline)	Municipal Point Sources
	PJBA-C2	Mt. Morris Cr. North	0.66	Aquatic Life	Full		
	PJBB	Mt. Morris Cr. South	2.83	Aquatic Life	Not Assessed		
	PJB-C4	Coon Cr.	5.22	Aquatic Life	Full		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Upper Rock River Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Code	Source Code
0709000506	P 06*	Rock R.	2.71	Aquatic Life	Full		
				Primary Contact	Full		
				Fish Consumption	Partial	Mercury, PCB	Unknown
	P 20*	Rock R.	13.62	Aquatic Life	Full		
				Primary Contact	Full		
				Fish Consumption	Partial	Mercury, PCB	Unknown
	P 21	Rock R.	18.36	Aquatic Life	Full		
				Fish Consumption	Partial	Mercury, PCB	Unknown
	PK 01	Franklin Cr.	15.91	Aquatic Life	Full		
	PZR 01	Threemile Cr.	20.11	Aquatic Life	Full		
	PZU	Clear Cr.	8.60	Aquatic Life	Not Assessed		
	PZV	Gale Cr.	8.18	Aquatic Life	Not Assessed		
	PZZN	Sevenmile Branch	9.52	Aquatic Life	Not Assessed		
	RPG	SINNISSIPPI BAYOU LAKE	70	Aquatic Life	Full		
				Primary Contact	Nonsupport	Suspended Solids	Agriculture-Crop Production, Forest/Grassland
				Secondary Contact	Nonsupport	Phosphorus, Suspended Solids	Agriculture-Crop Production, On-site Wastewater Systems, Contaminated Sediments, Forest/Grassland
	RPZF	LOST NATION LAKE	88	Aquatic Life	Full		
				Primary Contact	Partial	Unknown	Unknown
				Secondary Contact	Partial	Unknown	Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Green River Watershed							
HUC 10	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000701	PB 05	Green R.	8.49	Aquatic Life	Partial	Other Flow Regime Alterations, Habitat Alteration	Crop Production, Channelization, Flow Regulation/ Modification
				Fish Consumption	Full	Siltation	Crop Production
	PB 10	Green R.	9.10	Aquatic Life	Full		
				Fish Consumption	Full		
	PBU 10	Willow Cr.	17.30	Aquatic Life	Full		
	PBUA	Dry Run	8.80	Aquatic Life	Not Assessed		
	RPZI	RICHARDSON WILDLIFE LAKE	12	Aquatic Life	Full		
				Primary Contact	Full		
				Secondary Contact	Partial	Habitat Alteration	Unknown
0709000702	PB 02	Green R.	9.52	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Partial	Total Fecal Coliform Bacteria	Source Unknown
	PB 06	Green R.	6.13	Aquatic Life	Full		
				Fish Consumption	Full		
	PB 08*	Green R.	16.02	Aquatic Life	Full		
				Fish Consumption	Full		
	PB 19	Green R.	10.17	Aquatic Life	Full		
				Fish Consumption	Full		
	PBP 01	Walnut Special Ditch	4.40	Aquatic Life	Partial	Aldrin	Contaminated Sediment
						Other Flow Regime Alterations	Channelization, Dredging, Flow Regulation/ Modification
						Habitat Alteration	Channelization, Dredging, Flow Regulation/ Modification, Removal of Riparian Vegetation
	PBPA	Crooked Cr.	5.03	Aquatic Life	Not Assessed		
	PBPB	Allen Cr.	3.04	Aquatic Life	Not Assessed		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Green River Watershed							
HUC 10	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000702	PBQ 01	Walnut Cr.	11.86	Aquatic Life	Not Assessed		
	PBS 01	Winnebago Ditch	4.78	Aquatic Life	Full		
				Fish Consumption	Full		
	RPJ	BASS LAKE	25.8	Aquatic Life	Full		
				Primary Contact	Partial	Algal Growth, Phosphorus (guideline)	Unknown
				Secondary Contact	Partial	Phosphorus, Habitat Alteration, Suspended Solids, Algal Growth, Phosphorus (guideline)	Unknown
	RPK	BLACK OAK LAKE	6.5	Aquatic Life	Full		
				Primary Contact	Partial	Algal Growth	Crop Production, Forest/ Grassland
						Phosphorus (guideline)	Crop Production, Contaminated Sediment, Forest/ Grassland
				Secondary Contact	Partial	Habitat Alteration	Crop Production, Contaminated Sediment
						Suspended Solids	Crop Production, Streambank Modification/ Destabilization
						Algal Growth	Crop Production, Forest/ Grassland
						Phosphorus (guideline)	Crop Production, Contaminated Sediment, Forest/ Grassland
	RPZB	PINE LAKE	2.5	Aquatic Life	Full		
				Primary Contact	Full		
				Secondary Contact	Partial	Habitat Alteration, Algal Growth, Phosphorus (guideline)	Unknown
	RPL	SUNSET (LEE) LAKE	7.2	Aquatic Life	Full		
				Primary Contact	Full		
				Secondary Contact	Partial	Habitat Alteration, Algal Growth, Phosphorus (guideline)	Unknown
	RPM	WOODHAVEN LAKE	26.8	Aquatic Life	Full		
				Primary Contact	Full		
				Secondary Contact	Partial	Phosphorus, Habitat Alteration, Algal Growth	Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Green River Watershed							
HUC 10	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000703	TP 03	Green R.	5.79	Aquatic Life	Partial	Total Nitrogen	Agriculture
				Fish Consumption	Full	Habitat Alteration	Channelization
	PB 08*	Green R.	16.02	Aquatic Life	Full		
				Fish Consumption	Full		
	PBK	Main Union Special Ditch	11.85	Aquatic Life	Not Assessed		
	PBKA	Keefer Branch	2.77	Aquatic Life	Not Assessed		
	PBM 11	Fairfield Ditch	7.58	Aquatic Life	Partial	Aldrin	Contaminated Sediment
						Other Flow Regime Alterations	Channelization, Flow Regulation/Modification, Contaminated Sediments
						Habitat Alteration	Channelization
	PBO 10	Fairfield Union Sp Ditch	5.63	Aquatic Life	Partial		
						Aldrin, Total Nitrogen	Contaminated Sediment
						Siltation	Crop Production
0709000704	PBJ 04	Mud Cr.	27.48	Aquatic Life	Partial	Total Nitrogen	Agriculture
				Fish Consumption	Full		
	PBJA02	Coal Cr.	10.21	Aquatic Life	Full		
				Fish Consumption	Full		
	PBJA03	Coal Cr.	2.95	Aquatic Life	Full		
				Fish Consumption	Full		
	PBJA04	Coal Cr.	4.57	Aquatic Life	Partial	Habitat Alteration	Channelization
				Fish Consumption	Full		
	PBJA05	Coal Cr.	7.83	Aquatic Life	Full		
				Fish Consumption	Full		
	PBJAA	Lawson Cr.	6.15	Aquatic Life	Not Assessed		
	PBJD	Walker Cr.	8.38	Aquatic Life	Not Assessed		



## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Green River Watershed							
HUC 10	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
	PBJE	Tomahawk Cr.	2.50	Aquatic Life	Not Assessed		
	RPD	JOHNSON SAUK TRAIL LAKE	58	Aquatic Life	Full		
				Primary Contact	Partial	Suspended Solids, Phosphorus (guideline)	Crop Production, Waterfowl, Forest/ Grassland
				Secondary Contact	Partial	Phosphorus, Habitat Alteration, Suspended Solids, Algal Growth	Crop Production, Waterfowl, Forest/ Grassland
0709000705	PB 04*	Green R.	6.47	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Full		
	PB 28	Green R.	4.33	Aquatic Life	Partial	Total Nitrogen	Agriculture
						Habitat Alteration	Channelization
				Fish Consumption	Full		
	PBG 10	Big Slough Ditch	6.60	Aquatic Life	Partial	Other Flow Regime Alterations, Habitat Alteration	Channelization, Flow Regulation/ Modification
				Fish Consumption	Full		
	PBG 12	Big Slough Ditch	0.95	Aquatic Life	Partial	Barium (guideline)	Contaminated Sediment
						Habitat Alteration	Crop Production, Feedlots, Channelization
				Fish Consumption	Full		
	PBI 02	Spring Cr.	17.23	Aquatic Life	Partial	Other Flow Regime Alterations	Flow Regulation/ Modification
						Habitat Alteration	Channelization
				Fish Consumption	Full		
	PBI 03	Spring Cr.	2.25	Aquatic Life	Partial	Total Nitrogen	Agriculture
						Siltation	Agriculture, Channelization
				Fish Consumption	Full		
	PBIA	Oat Cr.	4.30	Aquatic Life	Not Assessed		
0709000706	PB 04*	Green R.	6.47	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Full		
	PB 09	Green R.	13.67	Aquatic Life	Partial	Total Nitrogen	Crop Production, Pasture Land
				Fish Consumption	Full		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Green River Watershed							
HUC 10	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000706	PBA	Mosquito Cr.	9.10	Aquatic Life	Not Assessed		
	PBB	Turner Cr.	8.03	Aquatic Life	Not Assessed		
	PBC	Mud Cr.	9.86	Aquatic Life	Not Assessed		
	PBD 02	Mineral Cr.	12.31	Aquatic Life	Partial	Unknown	
						Total Nitrogen	Crop Production, Contaminated Sediment
						Other Flow Regime Alteration	Crop Production, Channelization, Flow Regulation/ Modification, Contaminated Sediment
						Habitat Alteration	Channelization
	PBDA	W. Mineral Cr.	8.08	Aquatic Life	Not Assessed		
	PBE 01	Geneseo Cr.	13.71	Aquatic Life	Partial	Total Nitrogen, Siltation	Agriculture
						Siltation	Agriculture, Channelization, Removal of Riparian Vegetation
						Habitat Alteration	Channelization, Removal of Riparian Vegetation

Pecatonica Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000310	PWW	Spafford Cr.	6.81	Aquatic Life	Not Assessed		
	PWWA	E. Spafford Branch	4.32	Aquatic Life	Not Assessed		
0709000311	PWT	Cedar Cr.	4.45	Aquatic Life	Not Assessed		
	PWU	Indian Cr.	7.48	Aquatic Life	Not Assessed		
0709000313	PWP 06	Richland Cr.	19.44	Aquatic Life	Full		
	PWPA01	Cedar Cr.	15.64	Aquatic Life	Partial	Cadmium	Urban Runoff/Storm Sewers
						Total Nitrogen as N	Crop-related Sources, Urban Runoff/ Storm Sewers
	PWPAA	Coon Cr.	4.23	Aquatic Life	Not Assessed		
	PWPB	Brush Cr.	7.00	Aquatic Life	Full		
	PWPC01	E. Br. Richland Cr.	0.77	Aquatic Life	Not Assessed		

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Pecatonica Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000314	PW 04	Pecatonica R.	7.24	Aquatic Life	Partial	Sedimentation/Siltation, Total Suspended Solids	Crop-related Sources
				Fish Consumption	Partial	PCBs	Source Unknown
	PW 07	Pecatonica R.	20.25	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	PW 08*	Pecatonica R.	2.50	Aquatic Life	Partial	Sedimentation/Siltation, Total Suspended Solids	Crop-related Sources
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Nonsupport	Total Fecal Coliform Bacteria	Source Unknown
	PWO	Preston Cr.	7.19	Aquatic Life	Not Assessed		
	PWQ 04	Waddams Cr.	9.46	Aquatic Life	Not Assessed		
	PWR	Spring Cr.	4.81	Aquatic Life	Not Assessed		
	PWS	Muddy Cr.	5.49	Aquatic Life	Not Assessed		
	PWV	Honey Cr.	0.41	Aquatic Life	Not Assessed		
	RPA	LE-AQUA-NA	39.5	Aquatic Life	Full		
				Primary Contact	Partial	Suspended Solids, Algal Growth, Phosphorus (guideline)	Crop Production, Forest/ Grassland
				Secondary Contact	Partial	Phosphorus, Habitat Alteration, Suspended Solids, Algal Growth	Crop Production, Forest/ Grassland
	RPZH	WILLOW (STEPHENSON)	23	Aquatic Life	Full		
				Primary Contact	Partial	Phosphorus (guideline)	Unknown
				Secondary Contact	Partial	Phosphorus, Suspended Solids, Algal Growth	Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Pecatonica Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000315	PWN 01	Yellow Cr.	4.55	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Nonsupport	Total Fecal Coliform Bacteria	Source Unknown
	PWN 02	Yellow Cr.	28.23	Aquatic Life	Not Assessed		
				Fish Consumption	Full		
	PWN 03	Yellow Cr.	17.06	Aquatic Life	Full		
				Fish Consumption	Full		
	PWNA	Crane Grove Cr.	8.38	Aquatic Life	Full		
	PWNB	Lost Cr.	13.18	Aquatic Life	Partial	Nitrogen, Total	Crop Production
	PWNBA	Boone Branch	2.88	Aquatic Life	Not Assessed		
	PWNC	Spring Branch	4.15	Aquatic Life	Partial	Phosphorus (guideline), Ammonia Nitrogen	Agriculture, Source Unknown
0709000316	PWI 01	Rock Run	20.47	Aquatic Life	Full		
	PWIA01	Pink Cr.	8.67	Aquatic Life	Not Assessed		
	PWIB	Morrison Spring Branch	4.15	Aquatic Life	Not Assessed		
	PWIC	Brown Cr.	6.84	Aquatic Life	Not Assessed		
0709000318	PWA 01	Raccoon Cr.	5.61	Aquatic Life	Full		
	PWAD	E. Fk. Raccoon Cr.	1.37	Aquatic Life	Not Assessed		
0709000319	PW 01	Pecatonica R.	6.97	Aquatic Life	Partial	Total Nitrogen as N, Sedimentation/ Siltation, Total Suspended Solids	Crop-related Sources
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Partial	Total Fecal Coliform Bacteria	Source Unknown
	PW 02	Pecatonica R.	18.49	Aquatic Life	Partial	Sedimentation/Siltation	Crop-related Sources
				Fish Consumption	Partial	PCBs	Source Unknown
	PW 06	Pecatonica R.	22.96	Aquatic Life	Not Assessed		
				Fish Consumption	Partial	PCBs	Source Unknown
	PW 13	Pecatonica R.	8.64	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Pecatonica Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000319	PWC 01	Rhule Cr.	3.84	Aquatic Life	Not Assessed		
	PWD	Tunnison Cr.	5.99	Aquatic Life	Not Assessed		
	PWE	Hungry Run	3.24	Aquatic Life	Not Assessed		
	PWF-L-C1	Coolidge Cr.	3.16	Aquatic Life	Partial	Other Flow Regime Alterations, Algal Growth	Upstream Impoundment, Flow Regulation/ Modification
	PWF-L-C2	Coolidge Cr.	2.82	Aquatic Life	Full		
				Fish Consumption	Not Assessed		
	PWF-W-C1	Coolidge Cr.	2.34	Aquatic Life	Nonsupport	Total Nitrogen, Sedimentation/ Siltation, Other Flow Regime Alterations, Phosphorus (guideline)	Municipal Point Sources
	PWF-W-C4	Coolidge Cr.	1.83	Aquatic Life	Full		
				Fish Consumption	Not Assessed		
	PWH 02	Sumner Cr.	10.93	Aquatic Life	Full		
	PWHA	Grove Cr.	8.48	Aquatic Life	Not Assessed		
	PWJ	Wickham Cr.	5.88	Aquatic Life	Not Assessed		
	PWK	Miller Cr.	2.31	Aquatic Life	Not Assessed		
	PWL 01	Winneshiek Cr.	8.94	Aquatic Life	Partial	Unknown, Total Nitrogen, Sedimentation/ Siltation, Total Suspended Solids, Phosphorus (guideline)	Municipal Point Sources
	PWM	Silver Cr.	5.94	Aquatic Life	Not Assessed		
	PW 08*	Pecatonica R.	4.98	Aquatic Life	Partial	Sedimentation/Siltation, Total Suspended Solids	Crop-related Sources
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Nonsupport	Total Fecal Coliform Bacteria	Source Unknown
0709000405	PWBA	Otter Cr.	5.32	Aquatic Life	Full		
	PWBB01	N. Br. Otter Cr.	9.78	Aquatic Life	Full		
	PWBC	S. Br. Otter Cr.	8.97	Aquatic Life	Partial	Unknown	Source Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Pecatonica Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000405	RPI	SUMMERSET	285	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Full		
				Secondary Contact	Partial	Phosphorus, Suspended Solids, Algal Growth	Unknown
0709000406	PWB 01	Sugar R.	5.54	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	PWB 03	Sugar R.	4.52	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown

Kishwaukee Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000601	PQF 06	Coon Cr.	6.02	Aquatic Life	Full		
	PQF 07	Coon Cr.	22.00	Aquatic Life	Full		
				Primary Contact	Partial	Total Fecal Coliform	Source Unknown
	PQFA	Mosquito Cr.	7.84	Aquatic Life	Not Assessed		
	PQFB	Spring Cr.	8.08	Aquatic Life	Not Assessed		
	PQFC	Burlington Cr.	10.52	Aquatic Life	Full		
	PQFD-H-A1	ILPQFD01	1.43	Aquatic Life	Full		
	PQFD-H-C1	Hampshire Cr.	3.41	Aquatic Life	Nonsupport	Nitrogen, ammonia (Total), Dissolved Oxygen, Total Phosphorus (guideline)	Municipal Point Sources

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Kishwaukee Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000602	PQH 01	Rush Cr.	14.82	Aquatic Life	Full		
	PQI 10	S. Br. E. Kishwaukee R.	5.81	Aquatic Life	Partial	Sedimentation/Siltation	Crop-related Sources, Land Development, Channelization, Flow Regulation/ Modification
						Other flow alterations	Land Development, Channelization, Flow Regulation/ Modification
						Physical-Habitat Alteration, Aquatic Plants Native, Excess Algal Growth	Channelization, Flow Regulation/ Modificaton
						Barium	Municipal Point Sources, Contaminated Sediments
						Total Phosphorus (guideline)	Municipal Point Sources
	PQIB-H-C1	Huntley Ditch	0.54	Aquatic Life	Nonsupport	Zinc, Total Dissolved Solids, Chlorides	Municipal Point Sources
						Sedimentation/Siltation	Crop-related Sources, Land Development, Urban Runoff/ Storm Sewers, Channelization
						Physical-Habitat Alteration	Channelization
						Hexachlorobenzene	Contaminated Sediments
						Copper, Barium, Total Phosphorus (guideline)	Municipal Point Sources, Contaminated Sediments
	PQIC	Eakin Cr	9.31	Aquatic Life	Not Assessed		
	PQI-H-C3	S. Br. Kishwaukee River (East)	2.65	Aquatic Life	Partial	Other flow alterations	Land Development, Flow Regulation/ Modification
						Physical-Habitat Alteration	Land Development, Channelization
						Total Phosphorus (guideline)	Municipal Point Sources
	PQI-H-C5	S. Br. Kishwaukee River (East)	4.03	Aquatic Life	Partial	Copper	Municipal Point Sources, Urban Runoff/ Storm Sewers
						Total Phosphorus (guideline)	Municipal Point Sources

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Kishwaukee Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
0709000602	PQI-H-D1	S. Br. Kishwaukee River	5.72	Aquatic Life	Partial	Siltation	Crop Related Sources, Land Development
						Flow Regime Alterations	Land Development, Flow Regulation/Modification
						Habitat Alterations	Channelization
	PQJ 01	N. Br. Kishwaukee R.	17.16	Aquatic Life	Full		
	PQ 07	Kishwaukee R.	4.54	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	PQ 10	Kishwaukee R.	11.51	Aquatic Life	Full		
				Primary Contact	Nonsupport	Pathogens	Source Unknown
				Fish Consumption	Partial	PCBs	Source Unknown
	PQ 13	Kishwaukee R.	18.32	Aquatic Life	Partial	Total Nitrogen as N	Municipal Point Sources, Crop Related Sources, Crop Production, Contaminated Sediments
						Siltation	Crop Related Sources, Crop Production, Channelization
						Habitat Alterations	Channelization
						Fish Consumption	Unknown
0709000603	PQE 06	Piscasaw Cr.	12.07	Aquatic Life	Full		
	PQE 07	Piscasaw Cr.	13.76	Aquatic Life	Not Assessed		
				Fish Consumption	Not Assessed		
	PQEA01	Mokeler Creek	5.25	Aquatic Life	Full		
	PQEA-H-A1	Mokeler Creek	3.70	Aquatic Life	Not Assessed		
	PQEA-H-C1	Mokeler Creek	1.17	Aquatic Life	Partial	Cause Unknown	
						Sedimentation/Siltation	Crop-related Sources, Land Development, Urban Runoff/ Storm Sewers, Channelization
						Other flow alterations	Municipal Point Sources, Land Development, Urban Runoff/ Storm Sewers
						Physical-Habitat Alteration	Channelization



## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

Kishwaukee Watershed							
HUC 10 Watershed	Segment ID	Segment Name	Size: in Miles or Acres	Designated Use	Use Support	Cause Name	Source Name
	PQEB	W. Br. Piscasaw Cr.	5.92	Aquatic Life	Not Assessed		
	PQEC-A	Lawrence Cr.	4.32	Aquatic Life	Partial	Unknown	Unknown
	PQEC-C	Lawrence Cr.	3.59	Aquatic Life	Partial	Total Nitrogen as N, phosphorus (guideline)	Industrial Point Source
	PQEE01	N. Fk. East Fork	1.46	Aquatic Life	Not Assessed		
	PQEF01	L. Beaver Cr.	7.79	Aquatic Life	Not Assessed		
	PQEG	Geryune Cr.	8.79	Aquatic Life	Not Assessed		
0709000604	PQD 05	Beaver Cr.	8.54	Aquatic Life	Full		
	PQD 06	Beaver Cr.	6.80	Aquatic Life	Full		
	PQD 07	Beaver Cr.	12.46	Aquatic Life	Full		
	PQDA01	Mosquito Cr.	1.89	Aquatic Life	Full		
	RPV	CANDLEWICK LAKE	200	Aquatic Life	Full		
				Primary Contact	Partial	Algal Growth, Phosphorus (guideline)	Unknown
				Secondary Contact	Partial	Phosphorus, Suspended Solids, Algal Growth	Unknown
0709000605	RPZG	SYCAMORE LAKE	7.5	Fish Consumption	Partial	PCBs	Unknown
0709000606	PQC 02	S. Br. Kishwaukee R.	12.44	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	PQC 05	S. Br. Kishwaukee R.	15.60	Aquatic Life	Nonsupport	Unknown	Municipal Point Source, Crop Production
				Fish Consumption	Partial	PCBs	
	PQC 06	S. Br. Kishwaukee R.	5.37	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Partial	Total Fecal Coliform	Source Unknown
	PQC 09	S. Br. Kishwaukee R.	9.11	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	PQC 11	S. Br. Kishwaukee R.	6.92	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown

## Appendix P. Illinois EPA Assessments of Use Support for Streams and Lakes in the Rock River Basin, 2004 (continued).

0709000606	PQC 13	S. Br. Kishwaukee R.	14.06	Aquatic Life	Partial	Total Nitrogen as N, Sediment/Siltation	Nonirrigated Crop Production
						Physical-Habitat Alteration	Channelization
						Excess Algal Growth	Nonirrigated Crop Production, Channelization
				Fish Consumption	Partial	PCBs	Source Unknown
	PQCB01	Owens Cr.	14.80	Aquatic Life	Not Assessed		
	PQCF	N Br S Br Kishwaukee R	6.80	Aquatic Life	Not Assessed		
	PQCG	Mid Br S Br Kishwaukee R.	4.91	Aquatic Life	Not Assessed		
	PQCK01	Rosetter Cr.	6.71	Aquatic Life	Not Assessed		
0709000607	PQCL01	E. Br. S. Br. Kishwaukee R.	3.51	Aquatic Life	Not Assessed		
	PQCL02	E. Br. S. Br. Kishwaukee R.	7.09	Aquatic Life	Full		
	PQB 02	Killbuck Cr.	6.21	Aquatic Life	Full		
				Primary Contact	Partial	Total Fecal Coliform	Source Unknown
	PQB 03	Killbuck Cr.	4.20	Aquatic Life	Full		
				Fish Consumption	Full		
0709000608	PQB 04	Killbuck Cr.	9.43	Aquatic Life	Not Assessed		
	PQBA	E. Br. Killbuck Cr.	14.17	Aquatic Life	Partial		
	PQBE	Spring Run	5.77	Aquatic Life	Not Assessed		
	PQ 02	Kishwaukee R.	4.57	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Partial	Total Fecal Coliform	Source Unknown
	PQ 12	Kishwaukee R.	13.80	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
				Primary Contact	Partial	Total Fecal Coliform	Source Unknown
	PQ 14	Kishwaukee R.	10.92	Aquatic Life	Full		
				Fish Consumption	Partial	PCBs	Source Unknown
	RPE	CHERRY VALLEY LAKE	22	Aquatic Life	Full		
				Fish Consumption	Full		
				Primary Contact	Full		
				Secondary Contact	Full		

\* Indicates that the waterbody is in more than one watershed.

All uses for 303(d) listed waterbodies are highlighted in red, but only uses listed as Partial or Nonsupport are impaired.

# Appendix Q. Illinois EPA sampling stations in the Rock River Basin.

STATION	WATERBODY NAME	LOCATION	COUNTY	TSHPR	RNG	SEC.	USGS 7.5 MINUTE			STATION TYPE
							LATITUDE	LONGITUDE	QUADRANGLE	
RPA	Le-Aqua-Na Lake	2 mi n of lena	Stephenson	28N	6E	17	42.4188925	-89.8288925	LENA	ALMP
RPA-1	Le-Aqua-Na Lake	Site 1 near dam	Stephenson	28N	6E	17	42.4188920	-89.8288930	LENA	ALMP
RPA-2	Le-Aqua-Na Lake	Site 2 660 ft w of site 1	Stephenson	28N	6E	17	42.4191700	-89.8316700	LENA	ALMP
RPA-3	Le-Aqua-Na Lake	Site 3 660 ft sw of site 2	Stephenson	28N	6E	17	42.4211160	-89.8347270	LENA	ALMP
RPC	Pierce State Lake	In rock cut state park nr loves park	Winnebago	45N	2E	27	42.3486150	-88.9797270	CALEDONIA	ALMP
RPC-1	Pierce State Lake	Site 1 660 ft nw docks near dam	Winnebago	45N	2E	27	42.3452820	-88.9844490	CALEDONIA	ALMP
RPC-2	Pierce State Lake	Site 2 1700 ft ne site 1 l center	Winnebago	45N	2E	27	42.3486150	-88.9797270	CALEDONIA	ALMP
RPC-3	Pierce State Lake	Site 3 2000 ft e site 2	Winnebago	45N	2E	26	42.3502810	-88.9711150	CALEDONIA	ALMP
RPD	Johnson Sauk Trl L	6 mi nne kewanee	Henry	16N	5E	35	41.3291700	-89.8833370	KEWANEE N	ALMP
RPD-1	Johnson Sauk Trl L	Site 1 near dam	Henry	16N	5E	35	41.3344480	-89.8802820	KEWANEE N	ALMP
RPD-2	Johnson Sauk Trl L	Site 2 660 ft sw site 1	Henry	16N	5E	35	41.3291700	-89.8833370	KEWANEE N	ALMP
RPD-3	Johnson Sauk Trl L	Site 3 660 ft sw site 2 Baumann park lake	Henry	16N	5E	35	41.3261150	-89.8847260	KEWANEE N	ALMP
RPE	Cherry Valley Lake	cherry valley	Winnebago	43N	2E	1	42.2283370	-88.9597270	CHERRY VALLEY	ALMP
RPE-1	Cherry Valley Lake	T44n1re2sw	Winnebago	43N	2E	1	42.2286150	-88.9588920	CHERRY VALLEY	ALMP
RPE-2	Cherry Valley Lake	T44n2re2se	Winnebago	43N	2E	2	42.2286150	-88.9611160	CHERRY VALLEY	ALMP
RPF-1	Carlton Lake	S1 nr dam se end center t22nr5ese31	Whiteside	22N	5E	31	41.8458370	-89.9630590	MORRISON	ALMP
RPF-2	Carlton Lake	S2 midlk 1200 ft w s1 t22nr5ese31	Whiteside	22N	5E	31	41.8452810	-89.9683370	MORRISON	ALMP
RPF-3	Carlton Lake	S3 hdwtrs mouth lg nw arm t22nr5esw31	Whiteside	22N	5E	31	41.8458370	-89.9727810	MORRISON	ALMP
RPH-1	Levings Park Lago	Site 1 t44nr1es28nw Near joslin t18n r2e	Winnebago	44N	1E	28	42.2605590	-89.1325040	WINNEBAGO	LAKE
RPZC	Joslin Landuit Lak	sec 13	Rock island	18N	2E	13	41.5494500	-90.2084700	HILLSDALE	LAKE
RPG-1	Sinnissippi Bayou	Bayou st 1 w end	Whiteside	21N	7E	23	41.7958370	-89.6650050	STERLING	VLMP
RPG-2	Sinnissippi Bayou	Bayou st 2 midlake	Whiteside	21N	7E	23	41.7952810	-89.6575030	STERLING	VLMP
RPG-3	Sinnissippi Bayou	Bayou st 3 e end	Whiteside	21N	7E	23	41.7947260	-89.6530590	STERLING	VLMP
RPI	Summerset Lake	Near davis	Stephenson	28N	9E	1	42.4555590	-89.4063930	DAVIS	VLMP
RPI-1	Summerset		Stephenson	28N	10E	6	42.4486000	-89.3849000	DAVIS	VLMP

RPJ-1	Bass		Lee	19N	10E	12	41.6544000	-89.2873000	AMBOY	VLMP
RPK-1	Black Oak		Lee	19N	10E	1	41.6575000	-89.2895000	AMBOY	VLMP
RPL-1	Sunset		Lee	19N	10E	12	41.6479000	-89.2937000	AMBOY	VLMP
RPM-1	Woodhaven		Lee	19N	10E	11	41.6566000	-89.3061000	AMBOY	VLMP
RPV-1	Candlewick		Boone	45N	3E	27	42.3487000	-88.8657000	BELVIDERE N	VLMP
RPZB-1	Pine		Lee	19N	10E	11	41.6518000	-89.3095000	AMBOY	VLMP
RPZF	Lost Nation Lake	Near grand detour Rt 92 br 2 mi e of joslin	Ogle	22N	10E	8	41.9155590	-89.3638930	DAYSVILLE	VLMP
P-04	Rock River	Rt 30 2 mi w rock falls, n of como	Rock island	18N	3E	18	41.5557600	-90.1851400	HILLSDALE	AWQMN
P-06	Rock River	Rt 72 br at byron, il	Whiteside	21N	7E	31	41.7722900	-89.7456100	STERLING	AWQMN
P-14	Rock River	Rt 75 br s edge of rockton	Ogle	25N	11E	32	42.1220100	-89.2551700	OREGON	AWQMN
P-15	Rock River	Rt 2 br s of grand detour, il	Winnebago	46N	1E	24	42.4499300	-89.0724000	SOUTH BELOIT	AWQMN
P-20	Rock River	Rt 88 br 1 mi s of deer grove	Ogle	22N	9E	14	41.8900700	-89.4203600	GRAND DETOUR	AWQMN
PB-02	Green River	Rt 82 n of geneseo	Whiteside	19N	7E	34	41.5946400	-89.6891800	NEW BEDFORD	AWQMN
PB-04	Green River	Rt 2 br 3 mi ne of erie	Henry	17N	3E	4	41.4887900	-90.1578900	GENESEO	AWQMN
PE-05	Rock Creek	Co rd br 2 mi nw of penrose	Whiteside	20N	4E	34	41.6796300	-90.0260700	ERIE	AWQMN
PH-16	Elkhorn Creek	Honey cr rd 1 mi e of daysville	Whiteside	22N	7E	9	41.9027600	-89.6962900	HAZELHURST	AWQMN
PL-03	Kyte River	1.3 mi s of perryville ups of s br confl	Ogle	23N	10E	13	41.9867300	-89.2947800	DAYSVILLE	AWQMN
PQ-02	Kishwaukee River	Co rd br 0.5 mi n of garden prairie	Winnebago	43N	2E	15	42.2016900	-88.9797600	CHERRY VALLEY	AWQMN
PQ-10	Kishwaukee River	Blackhawk rd 2 mi sw of perryville	Boone	44N	4E	26	42.2610800	-88.7251500	GARDEN PRAIRIE	AWQMN
PQ-12	Kishwaukee River	Rt 251 4 mi s rockford near new milford, il	Winnebago	43N	2E	21	42.1944700	-88.9995100	CHERRY VALLEY	AWQMN
PQB-02	Killbuck Creek	Irene rd br 2m ene of fairdale	Winnebago	43N	1E	36	42.1599700	-89.0760300	ROCKFORD S	AWQMN
PQC-06	S Br Kishwaukee R	Harmony rd br 1m sw of riley	Dekalb	42N	3E	17	42.1102900	-88.9005300	FAIRDALE	AWQMN
PQF-07	Coon Creek	Rt 75 br at harrison	Mchenry	43N	5E	27	42.1823900	-88.6411200	RILEY	AWQMN
PW-01	Pecatonica River	Rt 75 br at freeport	Winnebago	28N	11E	14	42.4274900	-89.1955700	SHIRLAND	AWQMN
PW-08	Pecatonica River		Stephenson	27N	8E	31	42.3003000	-89.6151800	FREEPORT E	AWQMN

PWN-01	Yellow Creek	Rt 20 se edge freeport	Stephenson	26N	8E	4	42.2784800	-89.5783500	FREEPORT E	AWQMN
P-11	Rock River	Rt 64 at oregon	Ogle	23N	10E	3	42.0144800	-89.3264100	OREGON	IBS
P-21	Rock River	Below dixon	Lee	21N	8E	1	41.8352300	-89.5161500	FRANKLIN GROVE	IBS
P-23	Rock River	Rockford dam	Winnebago	44N	1E	26	42.2652810	-89.0952820	ROCKFORD N	IBS
P-24	Rock River	Prophetstown st pk prophetstn	Whiteside	20N	5E	33	41.6737000	-89.9278500	PROPHETSTOWN	IBS
P-47	Rock River	1.4 mile n rockton at prairie hill road	Winnebago	46N	1E	12	42.4749009	-89.0627361	SOUTH BELOIT	IBS
PB-05	Green River	Meridan rd 8mi se franklin gr	Lee	21N	11E	25	41.7834700	-89.1684300	ASHTON	IBS
PB-06	Green River	Harmon rd br 6 mi s harmon	Lee	19N	8E	14	41.6376200	-89.5549700	HARMON	IBS
PB-08	Green River	Co rd br 2 mi ssw thomas	Bureau	17N	6E	5	41.4838300	-89.8293300	MINERAL	IBS
PB-10	Green River	Rd binghampton 1mi e amboy	Lee	20N	10E	14	41.7165900	-89.3053600	AMBOY	IBS
PBD-02	Mineral Creek	Rt 6 2 mi se green river	Henry	17N	2E	17	41.4546300	-90.2955900	GREEN ROCK	IBS
PBG-10	Big Slough Dr Ditch	2.7 mi n geneseo	Henry	17N	3E	3	41.4931200	-90.1332800	GENESEO	IBS
PBI-02	Spring Creek	Co rd br 2.2mi nw atkinson	Henry	17N	4E	30	41.4368400	-90.0678500	ATKINSON	IBS
PBJA-03	Coal Creek	Closed co rd 2mi nnw annawan	Henry	17N	5E	28	41.4330300	-89.9201400	ANNAWANA	IBS
PBJA-05	Coal Creek	0.6 mi s sheffield idoc prop	Bureau	16N	7E	30	41.3414700	-89.7317800	BUDA	IBS
PBP-01	Walnut Sp Ditch	Walnut sp ditch 2.2mi ne new bedford	Bureau	18N	7E	27	41.5241200	-89.6762500	NEW BEDFORD	IBS
PBS-01	Winnebago Ditch	Br 1 mi n deer grove James rd 3.6m se	Whiteside	19N	7E	22	41.6280500	-89.6871700	HAHNAMAN	IBS
PHE-01	Buffalo Creek	hazelhurst	Whiteside	22N	7E	1	41.9281400	-89.6333800	HAZELHURST	IBS
PJ-01	Pine Creek	5.5 mi e polo	Ogle	23N	9E	9	41.9909200	-89.4713100	GRAND DETOUR	IBS
PK-01	Franklin Creek	Nat pre 3m nw frnkln gr	Lee	22N	10E	28	41.8596100	-89.3541600	FRANKLIN GROVE	IBS
PL-18	Kyte River	Flagg rd br 3 mi n flagg	Ogle	40N	1E	18	41.9372400	-89.1564600	CHANA	IBS
PN-02	Leaf River	1 mi se leaf r town line road	Ogle	24N	10E	5	42.1152500	-89.3745600	OREGON	IBS
PN-03	Leaf River	1.5 mi e adeline on bass rd	Ogle	25N	9E	21	42.1440700	-89.4668500	GERMAN VALLEY	IBS

PP-01	Stillman Creek	Holcomb rd 3m s stilman va	Ogle	42N	1E	31	42.0633100 -89.1662600	STILLMAN VALLE	IBS
PQ-07	Kishwaukee River	Rt 23 br n of marengo	Mchenry	44N	5E	26	42.2654900 -88.6083900	MARENGO N	IBS
PQ-13	Kishwaukee River	Pleasant valley rd	Mchenry	44N	6E	35	42.2478400 -88.5064400	MARENGO S	IBS
PQ-14	Kishwaukee River	Bus rt 20 belvidere	Boone	44N	3E	26	42.2590700 -88.8428900	BELVIDERE N	IBS
PQB-03	Killbuck Creek	Baxter rd kilbuck forest park	Winnebago	43N	1E	27	42.1652800 -89.0994500	ROCKFORD S	IBS
PQC-02	S Br Kishwaukee R	1.5 mi w sycamore Mcneal rd br 2 mi n	Dekalb	41N	4E	25	41.9967400 -88.7221000	SYCAMORE	IBS
PQC-11	S Br Kishwaukee R	fairdale Gurler rd 2mi sw	Dekalb	42N	3E	6	42.1377200 -88.9332700	CHERRY VALLEY	IBS
PQC-13	S Br Kishwaukee R	dekalb	Dekalb	39N	4E	4	41.8925000 -88.7861111	DEKALB	IBS
PQCL-02	E Br S Br Kishwauk	Motel rd br 2 mi w sycamore	Dekalb	41N	4E	25	42.0031600 -88.7155200	GENOA	IBS
PQD-05	Beaver Creek	Edson rd 1mi se popl grove	Boone	45N	4E	30	42.3554100 -88.8040800	BELVIDERE N	IBS
PQD-07	Beaver Creek	Rt 20 br 4 mi w belvidere	Boone	44N	3E	20	42.2761200 -88.9152800	CALEDONIA	IBS
PQE-06	Piscasaw Creek	Rt 173 br w chemung	Mchenry	46N	5E	32	42.4156400 -88.6714000	CAPRON	IBS
PQH-01	Rush Creek	Rd br 4 mi w marengo	Mchenry	44N	5E	20	42.2800300 -88.6859500	GARDEN PRAIRIE	IBS
PQI-10	South Branch-East	E kishwaukee r 2 mi se union	Mchenry	43N	6E	12	42.2194300 -88.4915900	HUNTLEY	IBS
PQJ-01	North Branch	Kishwaukee valley rd	Mchenry	44N	6E	8	42.3128000 -88.5531100	MARENGO N	IBS
PSB-01	N Fk Kent Creek	Anna page for pr 1.4m w rockford	Winnebago	44N	1E	8	42.3089900 -89.1522300	WINNEBAGO	IBS
PSBZ-11	U-Trib Pierce Chem	U-trib of pierce chem co lgn	Winnebago	44N	1E	7	42.3039444 -89.1705556	WINNEBAGO	IBS
PT-01	S Kinnikinnik Cree	4.8 mi e of roscoe at caledonia rd	Boone	46N	3E	32	42.4170917 -88.9148083	BELVIDERE NW	IBS
PW-02	Pecatonica River	Co rd br n pecatonica	Winnebago	27N	10E	29	42.3168900 -89.3592900	PECATONICA	IBS
PW-04	Pecatonica River	Rt 26 at freeport	Stephenson	27N	8E	30	42.3075300 -89.6319200	FREEPORT W	IBS
PW-07	Pecatonica River	E edge winslow	Stephenson	29N	6E	22	42.4930400 -89.7896700	LENA	IBS
PWA-02	Raccoon Creek	Old rr bridge at nigren wetland preserve off rockton rd	Winnebago	46N	1E	16	42.4580310 -89.1281060	SHIRLAND	IBS
PWB-03	Sugar River	Br 3.2 mi nw shirland	Winnebago	29N	11E	32	42.4729300 -89.2492800	SHIRLAND	IBS
PWH-01	Sumner Creek	Rt 20 br 3 mi se ridott	Stephenson	26N	9E	2	42.2786300 -89.4202100	RIDOTT	IBS
PWI-01	Rock Run	Rt 75 br 1.3 mi w davis	Stephenson	28N	9E	22	42.4173400 -89.4425000	DAVIS	IBS

PWN-03	Yellow Creek	Krape park sw edge freeport	Stephenson	26N	7E	1	42.2770700	-89.6466000	FREEPORT W	IBS
PWNA-04	Crane Grove Creek	4.2 mi s freeport at crane grove rd br	Stephenson	26N	8E	20	42.2366667	-89.6047222	FORRESTON N	IBS
PWP-06	Richland Creek	2.5 mi n orangeville at wst st line rd	Stephenson	29N	7E	24	42.5038889	-89.6444444	MONROE	IBS
PWPA-01	Cedar Creek	Rt 26 0.3 mi n cedarville	Stephenson	28N	8E	31	42.3830900	-89.6329000	ORANGEVILLE	IBS
DQZA-01	Hennepin Feedr Can	Rt 92 br 4mi e yorktown	Bureau	18N	6E	2	41.5694444	-89.7675000	YORKTOWN	STREAM
DQZA-03	Hennepin Feedr Can	Br 4.5mi ne of mineral	Bureau	17N	6E	27	41.4383333	-89.7900000	MINERAL	STREAM
P-01	Rock River	At power station	Rock island	17N	2W	14	41.4613500	-90.5780800	MILAN	STREAM
P-02	Rock River	Rt 150 br s of moline	Rock island	17N	1W	16	41.4611500	-90.4991200	COAL VALLEY	STREAM
P-03	Rock River	Rt 84 nr carbon cliff	Rock island	17N	1E	10	41.4835200	-90.3732500	GREEN ROCK	STREAM
P-05	Rock River	Rt 2 br se of rockton	Winnebago	46N	1E	19	42.4492944	-89.0601056	SOUTH BELOIT	STREAM
P-07	Rock River	Rt 20 w channel sw rockford	Winnebago	43N	1E	10	42.2194800	-89.0980300	ROCKFORD S	STREAM
P-08	Rock River	Rt 20 e channel sw rockford	Winnebago	43N	1E	11	42.2194667	-89.0951333	ROCKFORD S	STREAM
P-10	Rock River	Rt 26 in dixon	Lee	22N	9E	32	41.8456300	-89.4833800	DIXON E	STREAM
P-12	Rock River	Rt 78 1 mi n prophetstown	Whiteside	20N	5E	28	41.6857800	-89.9375300	PROPHETSTOWN	STREAM
P-13	Rock River	Marina dock 3mi ene sterling	Lee	21N	8E	18	41.8067600	-89.6126800	FRANKLIN GROVE	STREAM
P-18	Rock River	Rt 199 rock island	Rock island	17N	2W	9	41.4774600	-90.6055600	MILAN	STREAM
P-22	Rock River	Rockton dam tlwtr w of rockton	Winnebago	46N	1E	24	42.4507100	-89.0750800	SOUTH BELOIT	STREAM
P-25	Rock River	Steel dam tlwtr ne of milan	Rock island	17N	2W	13	41.4609600	-90.5488100	MILAN	STREAM
P-26	Rock River	Ups of rockton dam	Winnebago	46N	1E	13	42.4598444	-89.0781111	SOUTH BELOIT	STREAM
P-27	Rock River	Atwood homested forest pre	Winnebago	45N	2E	7	42.3841667	-89.0494444	SOUTH BELOIT	STREAM
P-28	Rock River	12th av br sterling	Whiteside	21N	7E	28	41.7833370	-89.7062540	STERLING	STREAM
P-30	Rock River	4 mi sw byron ups confl with leaf r	Ogle	24N	10E	10	42.0958333	-89.3197440	OREGON	STREAM
P-31	Rock River	5mi se leaf r. 1.5 mi dns leaf r confl	Ogle	24N	10E	15	42.0750000	-89.3280556	OREGON	STREAM
P-32	Rock River	Above oregon dam	Ogle	23N	10E	3	42.0230556	-89.3286111	OREGON	STREAM
P-33	Rock River	4 mi w new milford	Winnebago	43N	1E	21	42.1880556	-89.1291667	KISHWAUKEE	STREAM

P-34	Rock River	Castle rock state pk Fluch slough side	Ogle	23N	10E	20	41.9738889	-89.3666667	DAYSVILLE	STREAM
P-35	Rock River	channel 1mi n nelson	Lee	21N	8E	17	41.8075000	-89.6036111	FRANKLIN GROVE	STREAM
P-36	Rock River	4 mi w prophetstown	Whiteside	19N	4E	3	41.6694444	-90.0275000	ERIE	STREAM
P-37	Rock River	Btwn sterling and rockfalls	Whiteside	21N	7E	27	41.7861111	-89.6830556	STERLING	STREAM
P-38	Rock River	E sterling s of riverside cemetary	Whiteside	21N	7E	23	41.7938889	-89.6666667	STERLING	STREAM
P-39	Rock River	2.5 mi w prophetstown	Whiteside	20N	5E	31	41.6850000	-89.9675000	PROPHETSTOWN	STREAM
P-40	Rock River	0.6 mi dns confl with leaf river	Ogle	24N	10E	10	42.0876028	-89.3266667	OREGON	STREAM
P-41	Rock River	Below oregon dam	Ogle	23N	10E	3	42.0155556	-89.3272222	OREGON	STREAM
P-43	Rock River	Rr br 1.5mi nw daysville	Ogle	23N	10E	15	42.0009417	-89.3267417	DAYSVILLE	STREAM
P-44	Rock River	Belt line rd br 1.5 mi sw rockford	Winnebago	43N	1E	15	42.2041861	-89.1070556	ROCKFORD S	STREAM
P-45	Rock River	2.5m dns sterling lower dam	Whiteside	21N	7E	30	41.7833333	-89.7394444	STERLING	STREAM
P-46	Rock River	1 mi se of erie, ds erie road	Whiteside	19N	4E	17	41.6397222	-90.0655556	ERIE	STREAM
P-83	Rock River	1.7 mi ups byron	Ogle	25N	11E	29	42.1407100	-89.2419000	KISHWAUKEE	STREAM
P-84	Rock River	5.7 mi ups byron	Ogle	25N	11E	15	42.1688920	-89.2027810	KISHWAUKEE	STREAM
P-85	Rock River	Ds 15th ave rockford	Winnebago	44N	1E	34	42.2498500	-89.1035900	ROCKFORD S	STREAM
P-86	Rock River	Ups 15th ave rockford	Winnebago	44N	1E	34	42.2513300	-89.1030600	ROCKFORD N	STREAM
P-88	Rock River	N rockfd 0.6 mi ups rt 173 br	Winnebago	45N	2E	18	42.3773700	-89.0565800	SOUTH BELOIT	STREAM
P-89	Rock River	2.8 m ds rt 20 us conf kish r	Winnebago	43N	1E	21	42.1908200	-89.1247400	ROCKFORD S	STREAM
P-91	Rock River	N bank w of rt 88 sterling	Whiteside	21N	7E	28	41.7851000	-89.6945400	STERLING	STREAM
P-92	Rock River	S bank w of rt 88 sterling	Whiteside	21N	7E	28	41.7831111	-89.6934000	STERLING	STREAM
P-93	Rock River	N bank 1 m e rt 88 rock falls	Whiteside	21N	7E	22	41.7918000	-89.6754900	STERLING	STREAM
P-94	Rock River	S bank 1 m e rt 88 rock falls	Whiteside	21N	7E	22	41.7886600	-89.6741600	STERLING	STREAM
P-95	Rock River	Dixon dam nw	Lee	22N	9E	32	41.8473389	-89.4806889	DIXON E	STREAM
P-96	Rock River	Dixon dam se	Lee	22N	9E	32	41.8458056	-89.4794306	DIXON E	STREAM
P-97	Rock River	E of nelson 0.3 mi s rr	Lee	21N	8E	30	41.7868200	-89.6218000	FRANKLIN GROVE	STREAM



		br									
P-98	Rock River	Sterling between dams	Whiteside	21N	7E	27	41.7863800	-89.6863500	STERLING	STREAM	
P-99	Rock River	Fish sample at sterling below dams	Whiteside	21N	7E	28	41.7833370	-89.6955880	STERLING	STREAM	
PA-01	Mill Creek-South	Belt line rd br milan	Rock island	17N	2W	25	41.4299100	-90.5506500	MILAN	STREAM	
PB-01	Green River	Rt 84 s green rock	Henry	17N	1E	14	41.4641000	-90.3575900	GREEN ROCK	STREAM	
PB-03	Green River	4 mi n kinson	Henry	17N	4E	11	41.4743300	-90.0105200	ATKINSON	STREAM	
PB-07	Green River	Pump fact rd 4.5mi ssw walton	Lee	19N	9E	6	41.6643200	-89.4975800	WALTON	STREAM	
PB-09	Green River	Co rd br just n green river	Henry	17N	1E	12	41.4777800	-90.3209700	GREEN ROCK	STREAM	
PB-14	Green River	Wing rd br 3 mi w amboy	Lee	20N	11E	17	41.7242000	-89.2659400	AMBOY	STREAM	
PB-19	Green River	Walton rd br 3 mi s walton	Lee	20N	9E	35	41.6769500	-89.4398000	WALTON	STREAM	
PB-28	Green River	Co rd br 4 mi nnw atkinson	Henry	17N	4E	8	41.4725100	-90.0578700	ATKINSON	STREAM	
PB-29	Green River	1 mi sw amboy	Lee	20N	10E	28	41.6891667	-89.3602778	AMBOY	STREAM	
PBC-10	Mud Creek-West	Br 3.5mi ssw green rock	Henry	17N	1E	25	41.4263889	-90.3237778	GREEN ROCK	STREAM	
PBD-01	Mineral Creek	Br 1mi s of green rivr	Henry	17N	1E	13	41.4613333	-90.3193056	GREEN ROCK	STREAM	
PBD-10	Mineral Creek	I-80 br 1mi se green rock	Henry	17N	1E	14	41.4639444	-90.3387778	GREEN ROCK	STREAM	
PBD-11	Mineral Creek	I-80 br 6mi w geneseo	Henry	17N	2E	21	41.4403333	-90.2736111	GREEN ROCK	STREAM	
PBE-01	Geneseo Creek	Rt 6 br w edge geneseo	Henry	17N	3E	21	41.4477000	-90.1631400	GENESEO	STREAM	
PBE-10	Geneseo Creek	Nr canal 2mi nnw geneseo	Henry	17N	3E	8	41.4809722	-90.1811111	GENESEO	STREAM	
PBE-11	Geneseo Creek	1mi nnw of geneseo	Henry	17N	3E	17	41.4683889	-90.1758333	GENESEO	STREAM	
PBE-12	Geneseo Creek	150yds dwnstr geneseo stw	Henry	17N	3E	17	41.4605556	-90.1670833	GENESEO	STREAM	
PBE-13	Geneseo Creek	25yds dwnstr rr bridge	Henry	17N	3E	17	41.4561667	-90.1687500	GENESEO	STREAM	
PBE-14	Geneseo Creek	Br 2mi ssw of geneseo	Henry	17N	3E	32	41.4250000	-90.1822222	GENESEO	STREAM	
PBG-01	Big Slough Dr Dite	Br 3.5mi ne of geneseo	Henry	17N	3E	2	41.4966667	-90.1091667	ATKINSON	STREAM	
PBG-11	Big Slough Dr Dite	Rt 92 br 4mi s spring	Henry	18N	4E	9	41.5541667	-90.0358333	SPRING HILL	STREAM	

		hil									
PBG-12	Big Slough Dr Ditch	7mi ssw spring hill	Henry	18N	3E	36	41.5120900	-90.0864200	SPRING HILL	STREAM	
PBH-10	Blue Joint Dr Ditch	Br 2.5mi ene of	Henry	17N	3E	11	41.4800000	-90.1091667	ATKINSON	STREAM	
PBI-01	Spring Creek	geneseo	Henry	17N	3E	36	41.4191700	-90.0880500	ATKINSON	STREAM	
		Rt 6 3.5 mi w atkinson	Henry								
PBI-03	Spring Creek	Co rd br 3 mi nnw	Henry	17N	4E	17	41.4571400	-90.0605200	ATKINSON	STREAM	
PBI-04	Spring Creek	atkinson	Henry	16N	4E	6	41.3961300	-90.0800000	ATKINSON	STREAM	
		3.8 mi wsw atkinson	Henry								
PBI-12	Spring Creek	Nr br 5.5mi ne	Henry	16N	3E	23	41.3538333	-90.1148611	GERMAN CORNER	STREAM	
		cambridge	Henry								
PBI-13	Spring Creek	Br 3mi ne of	Henry	16N	3E	27	41.3405556	-90.1450000	CAMBRIDGE	STREAM	
		cambridge	Henry								
		Unnamed trib-sprg cr									
		br 3mi ne of									
PBIZ-10	Spring Cr-Unam Tri	cambridge	Henry	16N	3E	27	41.3452778	-90.1450000	CAMBRIDGE	STREAM	
PBJ-01	Mud Creek-East	Rt 6 br w of annawan	Henry	16N	5E	4	41.4002778	-89.9202778	ANNAWANA	STREAM	
		Co rd br 2 mi wsw									
PBJ-03	Mud Creek-East	annawan	Henry	16N	5E	8	41.3860500	-89.9531200	ANNAWANA	STREAM	
		Co rd br 3 mi nw									
PBJ-04	Mud Creek-East	atkinson	Henry	17N	5E	18	41.4559500	-89.9720800	ANNAWANA	STREAM	
		Br 5mi nnw of									
PBJ-05	Mud Creek-East	kewanee	Henry	15N	5E	6	41.3102778	-89.9733333	KEWANEE N	STREAM	
PBJ-06	Mud Creek-East	3mi nw annawan	Henry	17N	5E	29	41.4333333	-89.9480556	ANNAWANA	STREAM	
PBJ-07	Mud Creek-East	6 mi sw annawan	Henry	16N	4E	24	41.3641667	-89.9866667	KEWANEE N	STREAM	
PBJA-01	Coal Creek	Br 2mi e of mineral	Bureau	16N	6E	10	41.3862500	-89.7994444	MINERAL	STREAM	
		Co rd br 2.5 mi e									
PBJA-02	Coal Creek	mineral	Bureau	16N	6E	10	41.3867600	-89.7843300	MINERAL	STREAM	
		Co rd br 2 mi nnw									
PBJA-04	Coal Creek	mineral	Bureau	17N	6E	31	41.4152500	-89.8482500	MINERAL	STREAM	
		2.8 mi s of neponset									
PBJAAZA-01	U-Trib Lawson Cree	near co rd 350e	Bureau	16N	6E	27	41.3424944	-89.7062444	NEPONSET	STREAM	
		2.8 mi s of neponset									
		near, 0.5 mi e co rd									
PBJAAZA-02	U-Trib Lawson Cree	350e	Bureau	16N	6E	27	41.3406250	-89.7820944	NEPONSET	STREAM	
PBK-10	Main Union Sp Ditch	4mi wsw hooppole	Henry	18N	4E	36	41.5023900	-89.9782100	HOOPPOLE	STREAM	
PBL-01	Central Sp Ditch	Br 7mi n of annawan	Henry	18N	5E	33	41.4994440	-89.9197222	ANNAWANA	STREAM	
		Br 7.5mi n of									
PBLA-01	Wildcat Ditch	annawan	Henry	18N	5E	34	41.4966667	-89.9066667	ANNAWANA	STREAM	
PBM-11	Fairfield Ditch	Culvert e-w co rd	Bureau	18N	6E	30	41.5113600	-89.8571100	YORKTOWN	STREAM	
PBO-10	Fairfld Union Sp D	6m sse yorktown	Bureau	18N	6E	34	41.5033300	-89.8008100	YORKTOWN	STREAM	

PBQ-01	Walnut Creek	Co rd br 1 mi se walnut	Bureau	18N	8E	15	41.5468500 -89.5695000 WALNUT	STREAM
PBQ-02	Walnut Creek	Br 0.1mi upstr walnut stp	Bureau	18N	8E	17	41.5516667 -89.5966667 WALNUT	STREAM
PBQ-03	Walnut Creek	0.25 dwnstr of walnut stp	Bureau	18N	8E	17	41.5527778 -89.6016667 WALNUT	STREAM
PBQ-04	Walnut Creek	Br 3.1mi e of walnut stp	Bureau	18N	8E	13	41.5483333 -89.5308333 WALNUT	STREAM
PBQ-12	Walnut Creek	Co rd br 1 mi w walnut	Bureau	18N	8E	7	41.5566900 -89.6181300 WALNUT	STREAM
PBS-02	Winnebago Ditch	Br 2mi ssw of deer grove	Bureau	18N	7E	5	41.5843056 -89.7083333 NEW BEDFORD	STREAM
PBU-01	Willow Creek	Br 7mi sw of steward Meridan rd 7 mi sse	Lee	38N	1E	15	41.7666667 -89.1030556 STEWARD	STREAM
PBU-10	Willow Creek	ashton	Lee	21N	11E	36	41.7654000 -89.1683800 ASHTON	STREAM
PE-01	Rock Creek	Bunker hill rd 2m s morrison	Whiteside	21N	5E	31	41.7718100 -89.9679700 MORRISON	STREAM
PE-02	Rock Creek	Browns rd 1 mi n morrison	Whiteside	21N	5E	7	41.8280800 -89.9652100 MORRISON	STREAM
PE-03	Rock Creek	3.5mi wnw milledgvil Star rd br	Carroll	23N	6E	19	41.9736389 -89.8422528 MILLEDGEVILLE	STREAM
PF-01	Coon Creek	prophetstown	Whiteside	20N	5E	34	41.6720889 -89.9201806 PROPHETSTOWN	STREAM
PFCA-01	Tampico Creek	20ft upstr tampico stw	Whiteside	19N	6E	22	41.6238889 -89.7975000 YORKTOWN	STREAM
PFCA-02	Tampico Creek	0.1mi dwnstr tampico stw	Whiteside	19N	6E	22	41.6247500 -89.7991667 YORKTOWN	STREAM
PFCA-03	Tampico Creek	5yds upstr coleta road	Whiteside	19N	6E	21	41.6275556 -89.8050000 TAMPICO	STREAM
PFCA-04	Tampico Creek	20yds upstr conflu ditch2	Whiteside	19N	6E	16	41.6275556 -89.8227778 TAMPICO	STREAM
PFCB-01	Kropf Creek	10yds dwnstr jersey road	Whiteside	19N	6E	19	41.6133333 -89.8472222 YORKTOWN	STREAM
PH-01	Elkhorn Creek	Rt 2 6 mi sw sterling	Whiteside	21N	6E	26	41.7721900 -89.7721100 COMO	STREAM
PH-02	Elkhorn Creek	5mi ene milledgeville Rt 88 br 3mi n of	Carroll	23N	7E	6	42.0097222 -89.7344444 BROOKVILLE	STREAM
PH-12	Elkhorn Creek	sterling	Whiteside	21N	7E	4	41.8409167 -89.7033333 STERLING	STREAM
PH-13	Elkhorn Creek	Br 8mi wsw of polo Penrose rd 5 m n	Carroll	23N	7E	31	41.9357778 -89.7250000 HAZELHURST	STREAM
PH-14	Elkhorn Creek	sterling	Whiteside	22N	7E	21	41.8874000 -89.7011200 HAZELHURST	STREAM
PH-15	Elkhorn Creek	Olin br 9mi w of polo	Carroll	23N	6E	13	41.9750000 -89.7445833 HAZELHURST	STREAM
PH-17	Elkhorn Creek	Co rd 3.5m ne milledgeville	Carroll	23N	7E	6	42.0097500 -89.7343300 BROOKVILLE	STREAM

PHB-01	Sugar Creek	Fulfs rd 3 mi n sterling Whiteside		21N	7E	2	41.8437100 -89.6636000	STERLING	STREAM
PHI-01	Fivemile Creek	Long rd br 1 mi nw harmon	Ogle	24N	7E	24	42.0658500 -89.6465700	BROOKVILLE	STREAM
PIA-01	Fivemile Branch	Long rd br 1.5m nw harmon	Lee	20N	8E	9	41.7369000 -89.5737800	HARMON	STREAM
PJ-02	Pine Creek	1mi se white pines st pk	Ogle	23N	9E	5	42.0094444 -89.4913889	MOUNT MORRIS	STREAM
PJ-11	Pine Creek	2m nw grand detour edgewood rd	Ogle	22N	9E	3	41.9274100 -89.4497000	GRAND DETOUR	STREAM
PL-01	Kyte River	0.25 mi n daysville	Ogle	23N	10E	10	41.9918000 -89.3181100	DAYSVILLE	STREAM
PL-02	Kyte River	Rt 38 3 mi w rochelle	Ogle	40N	1E	29	41.9136100 -89.1339100	CHANA	STREAM
PL-04	Kyte River	1.5 mi se chana	Ogle	23N	11E	23	41.9653333 -89.1956944	CHANA	STREAM
PL-21	Kyte River	Chana rd br 1.5 mi s chana	Ogle	23N	11E	27	41.9570500 -89.2153000	CHANA	STREAM
PL-97	Kyte River	2 mi sw rochelle	Ogle	40N	1E	34	41.8926700 -89.1118100	ROCHELLE	STREAM
PL-98	Kyte River	1.2 mi ssw rochelle	Ogle	40N	1E	35	41.8933700 -89.0885100	ROCHELLE	STREAM
PL-99	Kyte River	0.6 mi n rochelle ds rt 51	Ogle	40N	1E	13	41.9426900 -89.0675400	ROCHELLE	STREAM
PLB-03	Beach Creek	Thorpe rd br 2 mi s flagg	Lee	39N	1E	4	41.8758500 -89.1313100	CHANA	STREAM
PLBA-01	S Br Beach Creek	Beach creek dwnstr from beach road	Lee	22N	11E	35	41.8537500 -89.1916667	ASHTON	STREAM
PLC-01	Steward Creek	4.75 mi nw steward	Lee	39N	1E	3	41.8830200 -89.0954500	ROCHELLE	STREAM
PLC-02	Steward Creek	2.5 mi nnw lee	Lee	39N	2E	25	41.8256800 -88.9609600	LEE	STREAM
PLC-03	Steward Creek	2 mi n lee dekalb-lee co line	Dekalb	39N	3E	30	41.8238100 -88.9412100	LEE	STREAM
PLC-06	Steward Creek	3 mi nnw lee	Lee	39N	2E	23	41.8333200 -88.9728000	LEE	STREAM
PLCA-01	U-Trib 1 Steward C	U-trib1 steward cr 1 mi e steward	Lee	39N	2E	15	41.8478500 -88.9970100	LEE	STREAM
PLCA-02	U-Trib 1 Steward C	U-trib1 steward cr 2 m ene steward	Lee	39N	2E	15	41.8548200 -88.9810200	LEE	STREAM
PLCAZ-01	U-Trib 1 2nd Stewa	U-trib sec2 steward cr, 2 mi e steward	Lee	39N	2E	14	41.8497270 -88.9808370	LEE	STREAM
PLCB-01	U-Trib 2 Steward C	U-trib2 steward cr 1.7 mi n lee	Lee	39N	2E	25	41.8189700 -88.9481100	LEE	STREAM
PLCZB-98	U-Trib 3 Steward C	U-trib3 steward cr 2.7 mi sse rochelle	Lee	39N	2E	5	41.8777810 -89.0347260	ROCHELLE	STREAM
PLCZB-99	U-Trib 3 Steward C	U-trib3 steward cr 2.7 mi se rochelle	Lee	39N	2E	6	41.8777810 -89.0458370	ROCHELLE	STREAM
PLE-03	Prairie Creek	Br 1.9 mi s honey cr	Ogle	23N	11E	19	41.9633500 -89.2747900	DAYSVILLE	STREAM

PM-01	Silver Creek	3 mi n oregon	Ogle	24N	10E	21	42.0641667	-89.3391667	OREGON	STREAM
PN-01	Leaf River	Rt 2 4 mi sw byron	Ogle	24N	10E	10	42.0996500	-89.3217900	OREGON	STREAM
PN-04	Leaf River	2 mi e adeline	Ogle	25N	9E	28	42.1411111	-89.4597222	GERMAN VALLEY	STREAM
POA-01	Middle Creek	Water rd br 2 mi nw byron	Ogle	25N	10E	24	42.1534200	-89.2904500	SEWARD	STREAM
PP-02	Stillman Creek	Br n stillman valley	Ogle	24N	11E	2	42.1125000	-89.1805556	STILLMAN VALLE	STREAM
PPA-01	Black Walnut Creek	Weld pk fp 3m se byron	Ogle	24N	11E	16	42.0875700	-89.2269800	STILLMAN VALLE	STREAM
PQ-01	Kishwaukee River	Rt 51 at new milford	Winnebago	43N	1E	24	42.1841900	-89.0720100	ROCKFORD S	STREAM
PQ-03	Kishwaukee River	1 mi n and 4 mi e of morristown	Winnebago	43N	2E	16	42.1972260	-88.9986150	CHERRY VALLEY	STREAM
PQ-09	Kishwaukee River	4 mi w belvidere	Boone	44N	3E	31	42.2537700	-88.9300100	CALEDONIA	STREAM
PQ-15	Kishwaukee River	Low flo dam belvdr	Boone	44N	3E	26	42.2549200	-88.8524500	BELVIDERE N	STREAM
PQ-16	Kishwaukee River	cty pk	Boone	44N	3E	26	42.2550000	-88.8516667	BELVIDERE N	STREAM
PQ-17	Kishwaukee River	Above belvidere dam	Boone	44N	3E	26	42.2550000	-88.8516667	BELVIDERE N	STREAM
PQ-18	Kishwaukee River	1.8 mi sse cherry valley at espenscheid	Winnebago	43N	2E	11	42.2110361	-88.9727444	CHERRY VALLEY	STREAM
PQ-99	Kishwaukee River	park canoe access	Winnebago	43N	2E	1	42.2358417	-88.9542944	CHERRY VALLEY	STREAM
PQB-04	Killbuck Creek	Cherry valley br at	Winnebago	43N	1E	21	42.1850100	-89.1308000	KISHWAUKEE	STREAM
PQB-05	Killbuck Creek	Ups mouth s rockford	Winnebago	43N	1E	21	42.1850100	-89.1308000	KISHWAUKEE	STREAM
PQBA-05	East Branch	Rt 72 2 mi e davis	Ogle	42N	2E	19	42.1003000	-89.0534800	KINGS	STREAM
PQBB-01	E Br-Malta Trib	junctn	Ogle	42N	2E	19	42.1003000	-89.0534800	KINGS	STREAM
PQBB-02	E Br-Malta Trib	Rt 38 br 1 mi e	Dekalb	40N	3E	19	41.9353800	-88.9340100	CRESTON	STREAM
PQBC-01	E Br Dreily Trib	creston	Dekalb	40N	3E	18	41.9355556	-88.9341111	CRESTON	STREAM
PQBD-01	E Br-Creston Trib	Rt 38 br 1mi e creston	Dekalb	40N	3E	18	41.9355556	-88.9341111	CRESTON	STREAM
PQC-01	S Br Kishwaukee R	Rt 38 br 1mi w kishwe	Dekalb	40N	3E	16	41.9357222	-88.9000000	CRESTON	STREAM
PQC-03	S Br Kishwaukee R	coll	Dekalb	40N	3E	17	41.9438889	-88.9063889	CRESTON	STREAM
PQC-04	S Br Kishwaukee R	Br 1.5mi w of kshwke	Ogle	40N	2E	12	41.9575000	-88.9416667	CRESTON	STREAM
PQC-05	S Br Kishwaukee R	coll	Ogle	40N	2E	12	41.9508333	-88.9611111	CRESTON	STREAM
PQC-07	S Br Kishwaukee R	Br 2mi nne of creston	Ogle	40N	2E	12	41.9508333	-88.9611111	CRESTON	STREAM
PQC-09	S Br Kishwaukee R	Br 1mi n of creston	Ogle	40N	2E	12	41.9508333	-88.9611111	CRESTON	STREAM
PQC-01	S Br Kishwaukee R	Rt 72 w edge genoa	Dekalb	42N	5E	19	42.0977700	-88.7051400	GENOA	STREAM
PQC-03	S Br Kishwaukee R	2.5 m ssw cherry vly	Winnebago	43N	2E	15	42.2004200	-88.9797500	CHERRY VALLEY	STREAM
PQC-04	S Br Kishwaukee R	N edge kirkland	Dekalb	42N	3E	23	42.0967100	-88.8513100	KIRKLAND	STREAM
PQC-05	S Br Kishwaukee R	2 mi nw sycamore	Dekalb	41N	4E	14	42.0280200	-88.7387900	GENOA	STREAM
PQC-07	S Br Kishwaukee R	Kesslinger rd br 3 mi	Dekalb	39N	4E	8	41.8780200	-88.8072300	DEKALB	STREAM
PQC-09	S Br Kishwaukee R	sw dekalt	Dekalb	42N	4E	20	42.1038300	-88.7833400	KIRKLAND	STREAM
		Glidden br 1 mi w	Dekalb	42N	4E	20	42.1038300	-88.7833400	KIRKLAND	STREAM

		kingston										
PQC-12	S Br Kishwaukee R	Rich rd br 1 mi w sycamore	Dekalb	40N	4E	1	41.9757300	-88.7274400	SYCAMORE	STREAM		
PQC-99	S Br Kishwaukee R	Taylor st in dekalb	Dekalb	40N	4E	27	41.9218600	-88.7661500	DEKALB	STREAM		
PQCB-01	Owens Creek	Base In rd 2mi sw kirkland	Dekalb	41N	3E	3	42.0656500	-88.8752600	FAIRDALE	STREAM		
PQCK-01	Rossetter Farm Cr	Rd 3m s chry v Hartman br 5 mi e	Winnebago	43N	2E	13	42.1993900	-88.9559400	CHERRY VALLEY	STREAM		
PQCL-01	E Br S Br Kishwauk	dekalb	Dekalb	40N	5E	23	41.9333400	-88.6348800	SYCAMORE	STREAM		
PQD-04	Beaver Creek	3 mi nw belvidere Hunter rd 5 mi e	Boone	44N	3E	8	42.3080028	-88.9032278	CALEDONIA	STREAM		
PQD-06	Beaver Creek	hunter	Boone	46N	4E	28	42.4294800	-88.7655900	BELVIDERE NE	STREAM		
PQD-08	Beaver Creek	3.5 mi sse caledonia 1.75 mi s poplar	Boone	44N	3E	4	42.3182000	-88.8811800	CALEDONIA	STREAM		
PQD-09	Beaver Creek	grove	Boone	45N	4E	30	42.3435900	-88.8220300	BELVIDERE N	STREAM		
PQDA-01	Mosquito Creek	5.33 mi nw belvidere	Boone	44N	3E	8	42.3111900	-88.9119800	CALEDONIA	STREAM		
PQDB-01	Spring Brook	3.5 mi se caledonia	Boone	44N	3E	2	42.3274200	-88.8582500	BELVIDERE N	STREAM		
PQDC-01	U-Trib Beaver Cr	U-trib mosquito cr 5mi nw belvidere	Boone	44N	3E	5	42.3143300	-88.9044600	CALEDONIA	STREAM		
PQE-01	Piscasaw Creek	East edge of belvidere at mouth	Boone	44N	4E	30	42.2626080	-88.8174810	BELVIDERE N	STREAM		
PQE-05	Piscasaw Creek	3 mi ne belvidere	Boone	44N	4E	19	42.2768100	-88.8097100	BELVIDERE N	STREAM		
PQE-07	Piscasaw Creek	Capron rd 3 mi s capron	Boone	45N	4E	26	42.3563000	-88.7445200	GARDEN PRAIRIE	STREAM		
PQE-08	Piscasaw Creek	Br 2.5 mi ese chemung	Mchenry	45N	5E	18	42.3855700	-88.6965900	CAPRON	STREAM		
PQE-09	Piscasaw Creek	Br 0.5 mi n chemung	Mchenry	46N	5E	32	42.4242000	-88.6673800	CAPRON	STREAM		
PQE-10	Piscasaw Creek	Graf rd br 2mi n chemung	Mchenry	46N	5E	21	42.4439500	-88.6602500	CAPRON	STREAM		
PQE-11	Piscasaw Creek	1 mi nw lawrence	Mchenry	46N	5E	21	42.4508333	-88.6602778	CAPRON	STREAM		
PQEA-01	Moakler Creek	Island rd 1 mi s chemung	Mchenry	45N	5E	4	42.4020000	-88.6667300	CAPRON	STREAM		
PQEB-01	W Br Piscasaw Cree	2 mi w lawrence	Mchenry	46N	5E	29	42.4425000	-88.6744444	CAPRON	STREAM		
PQEF-01	Little Beaver Cree	U-trib rt 173 br 2 mi e capron	Boone	45N	4E	1	42.4006200	-88.7061000	CAPRON	STREAM		
PQF-06	Coon Creek	Rt 20 2.5 mi e belvidere	Boone	44N	4E	33	42.2470300	-88.7810600	BELVIDERE S	STREAM		
PQF-08	Coon Creek	0.25 mi w riley	Mchenry	43N	5E	22	42.1922222	-88.6363889	RILEY	STREAM		
PQH-02	Rush Creek	5 mi w margeno	Mchenry	44N	5E	19	42.2791667	-88.6955556	GARDEN PRAIRIE	STREAM		

PQI-01	South Branch-East	Br 1.2mi w of huntley	Mchenry	43N	7E	31	42.1678333 -88.4533333 HUNTLEY	STREAM
PQI-02	South Branch-East	Rt 47 br 1mi s of huntley	Mchenry	43N	7E	33	42.1552778 -88.4322222 HUNTLEY	STREAM
PQI-03	South Branch-East	C&nw rr br near huntley	Mchenry	43N	7E	33	42.1597222 -88.4179167 HUNTLEY	STREAM
PQI-04	South Branch-East	Nr c&nw rr s of huntley	Mchenry	43N	7E	33	42.1597778 -88.4175000 HUNTLEY	STREAM
PQIB-01	Huntley Ditch	Nr c&nw rr br huntley	Mchenry	43N	7E	33	42.1600000 -88.4175000 HUNTLEY	STREAM
PQIB-02	Huntley Ditch	0.02mi dwnst huntley stp	Mchenry	43N	7E	33	42.1641667 -88.4158889 HUNTLEY	STREAM
PQIC-02	Eakin Creek	20yds dwnst farmrd culvrt	Mchenry	43N	7E	32	42.1541667 -88.4458333 HUNTLEY	STREAM
PQJ-02	North Branch	1 mi nw marengo	Mchenry	44N	5E	22	42.2769444 -88.6458333 GARDEN PRAIRIE	STREAM
PQJ-03	North Branch	5 mi w woodstock	Mchenry	44N	6E	2	42.3158333 -88.5091667 MARENGO N	STREAM
PQJ-99	North Branch	2.2 mi ne marengo	Mchenry	44N	6E	21	42.2731500 -88.5496800 MARENGO N	STREAM
PQZA-98	U-Trib Kishwaukee	Blvdr 40 yd us stn quarry	Boone	44N	3E	35	42.2443700 -88.8609400 BELVIDERE S	STREAM
PQZA-99	U-Trib Kishwaukee	Blvdr 50 yd us conf kish	Boone	44N	3E	27	42.2564500 -88.8646200 BELVIDERE N	STREAM
PR-01	Keith Creek	Rt20 rockford	Winnebago	44N	2E	19	42.2675000 -89.0388889 ROCKFORD N	STREAM
PR-99	Keith Creek	Ups conf rock r rockford	Winnebago	44N	1E	26	42.2579300 -89.0938800 ROCKFORD N	STREAM
PS-99	Kent Creek	Ups conf rock r rockford	Winnebago	44N	1E	27	42.2623000 -89.0964300 ROCKFORD N	STREAM
PSB-02	N Fk Kent Creek	2 mi w rockford	Winnebago	44N	1E	6	42.3105556 -89.1661111 WINNEBAGO	STREAM
PU-01	No Kinnikinnik Cre	2 mi nne roscoe	Winnebago	46N	2E	27	42.4349722 -88.9834806 BELVIDERE NW	STREAM
PV-01	Dry Creek	Hononegah f p 1.5m se rockton	Winnebago	46N	2E	30	42.4396300 -89.0425200 SOUTH BELOIT	STREAM
PW-03	Pecatonica River	Hancock av br in freeport	Stephenson	27N	8E	32	42.2976700 -89.6053900 FREEPORT E	STREAM
PW-05	Pecatonica River	Rt 70 7 mi ne pecatonica	Winnebago	27N	11E	5	42.3692200 -89.2623300 PECATONICA	STREAM
PW-06	Pecatonica River	1 mi n ridott	Stephenson	27N	9E	28	42.3106500 -89.4753800 RIDOTT	STREAM
PW-09	Pecatonica River	Ne edge freeport	Stephenson	27N	8E	32	42.2960000 -89.5955400 FREEPORT E	STREAM
PW-10	Pecatonica River	E edge freeport	Stephenson	27N	8E	33	42.2909100 -89.5840600 FREEPORT E	STREAM
PW-11	Pecatonica River	Rock r channel, 0.3 mi ups rt 75 br s rockton	Winnebago	46N	1E	24	42.4505600 -89.0787500 SOUTH BELOIT	STREAM
PW-12	Pecatonica River	Nr mcconnell	Stephenson	28N	7E	7	42.4322300 -89.7368100 ORANGEVILLE	STREAM

PW-13	Pecatonica River	Meridian rd harrison	Winnebago	28N	11E	12	42.4374800	-89.1746100	SHIRLAND	STREAM
PW-14	Pecatonica River	N of freeport	Stephenson	27N	7E	15	42.3313889	-89.6741667	FREEPORT W	STREAM
PW-15	Pecatonica River	2 mi s harrison	Winnebago	28N	11E	27	42.3938889	-89.2055556	SHIRLAND	STREAM
PW-16	Pecatonica River	0.25 mi n winslow	Stephenson	29N	6E	22	42.4986111	-89.7916667	LENA	STREAM
PW-17	Pecatonica River	Forest pre 0.5mi n rt 20 e	Winnebago	27N	10E	10	42.3491944	-89.3218472	PECATONICA	STREAM
PW-18	Pecatonica River	freeport	Stephenson	27N	8E	33	42.2880600	-89.5751400	FREEPORT E	STREAM
PW-20	Pecatonica River	1 mi nnw ridott	Stephenson	27N	9E	29	42.3097222	-89.4805556	RIDOTT	STREAM
PW-21	Pecatonica River	3 mi nne ridott 0.8mi dns w	Stephenson	27N	9E	27	42.3097222	-89.4402778	RIDOTT	STREAM
PW-22	Pecatonica River	mcconnell rd	Stephenson	28N	7E	17	42.4260833	-89.7293333	ORANGEVILLE	STREAM
PW-23	Pecatonica River	2.5 mi se mcconnell	Stephenson	28N	7E	29	42.3986111	-89.7194444	ORANGEVILLE	STREAM
PW-24	Pecatonica River	1.25mi sw scioto mills	Stephenson	27N	7E	10	42.3458333	-89.6880556	FREEPORT W	STREAM
PW-25	Pecatonica River	3 mi nw freeport	Stephenson	27N	7E	15	42.3300000	-89.6769444	FREEPORT W	STREAM
PW-26	Pecatonica River	2.5mi wsw ridott	Stephenson	27N	9E	31	42.2916667	-89.5120333	RIDOTT	STREAM
PW-27	Pecatonica River	2 mi se winslow	Stephenson	29N	6E	36	42.4680556	-89.7648889	LENA	STREAM
PW-28	Pecatonica River	4 mi se winslow	Stephenson	28N	6E	12	42.4408333	-89.7513889	LENA	STREAM
PWA-01	Raccoon Creek	Br 3.6 mi ne shirland	Winnebago	46N	1E	8	42.4767100	-89.1380700	SHIRLAND	STREAM
PWB-01	Sugar River	0.5 mi s shirland	Winnebago	28N	11E	14	42.4357000	-89.1977200	SHIRLAND	STREAM
PWB-02	Sugar River	2 mi w shirland	Winnebago	28N	11E	9	42.4451100	-89.2338000	SHIRLAND	STREAM
PWBA-01	Otter Creek	Br 3.7 mi nne davis Otter cr br 3.7 mi nne	Winnebago	29N	10E	31	42.4699400	-89.3817900	DAVIS	STREAM
PWBB-01	Otter Cr-No Branch	davis	Winnebago	29N	10E	32	42.4697260	-89.3816710	DAVIS	STREAM
PWC-01	Rhule Creek	Br 2.5 mi s harrison 2m sw pecatonica	Winnebago	28N	11E	35	42.3886300	-89.1942800	SHIRLAND	STREAM
PWH-02	Sumner Creek	ridot rd	Winnebago	27N	10E	31	42.2994480	-89.3894480	RIDOTT	STREAM
PWIA-01	Pink Creek	Br 3 mi nw pecatonica Fawver rd 4mi e	Winnebago	27N	10E	7	42.3526300	-89.3977500	RIDOTT	STREAM
PWL-01	Winneshiek Creek	freeport Greenbush rd 4 mi sw	Stephenson	27N	9E	30	42.3059400	-89.5136200	FREEPORT E	STREAM
PWN-02	Yellow Creek	lena	Stephenson	27N	5E	15	42.3402500	-89.9065000	KENT	STREAM
PWN-04	Yellow Creek	0.9 mi ds rt 20 n kent	Stephenson	27N	5E	10	42.3512600	-89.9223800	KENT	STREAM
PWNA-01	Crane Grove Creek	100ft dns br s freeport	Stephenson	26N	8E	7	42.2588889	-89.6194444	FREEPORT E	STREAM
PWNA-02	Crane Grove Creek	Walnut rd se freeport	Stephenson	26N	8E	18	42.2513889	-89.6208333	FREEPORT E	STREAM
PWNA-03	Crane Grove Creek	1.5 mi w s freeport	Stephenson	26N	8E	20	42.2369444	-89.6047222	FORRESTON N	STREAM
PWP-01	Richland Creek	Scioto mills t27n r7e Beaver rd .3mi w red	Stephenson	27N	7E	11	42.3563500	-89.6708900	FREEPORT W	STREAM
PWP-02	Richland Creek	oak	Stephenson	28N	7E	27	42.3898800	-89.6783700	ORANGEVILLE	STREAM



PWP-03	Richland Creek	N orangeville se24t29nr7e	Stephenson	29N	7E	24	42.4902778	-89.6380556	ORANGEVILLE	STREAM
PWP-04	Richland Creek	4 mi ssw orangeville	Stephenson	28N	7E	22	42.4094480	-89.6775040	ORANGEVILLE	STREAM
PWP-05	Richland Creek	W orangevil rd orangevil	Stephenson	29N	7E	36	42.4683370	-89.6491700	ORANGEVILLE	STREAM
PWPC-01	E Br Richland Cree	Henderson rd 2.8mi ne orangevil	Stephenson	29N	8E	20	42.5035600	-89.6132200	JUDA	STREAM
PWQ-01	Waddams Creek	Rt 73 br 2mi ne of lena	Stephenson	28N	6E	27	42.4007778	-89.7991667	LENA	STREAM
PWQ-02	Waddams Creek	Se le-aqua-na dam at park rd	Stephenson	28N	6E	16	42.4169480	-89.8277810	LENA	STREAM
PWQ-03	Waddams Creek	Nw le-aqua-na at park rd	Stephenson	28N	6E	17	42.4225030	-89.8397260	LENA	STREAM
PWQ-04	Waddams Creek	Unity rd 3 mi ne lena	Stephenson	28N	6E	25	42.3990900	-89.7628000	LENA	STREAM
PZB-01	Coal Creek	In coal valley deadend n 2nd	Rock island	17N	1W	26	41.4301400	-90.4579700	COAL VALLEY	STREAM
PZR-01	Threemile Branch	Atkinson rd 2m sw dixon	Lee	21N	8E	23	41.7990600	-89.5342900	FRANKLIN GROVE	STREAM
PZR-02	Threemile Branch	5mi sw dixon walkr rd	Lee	21N	8E	27	41.7870056	-89.5624750	FRANKLIN GROVE	STREAM
PZW-99	Mud Creek South	Ups conf rock r n rockford	Winnebago	45N	1E	26	42.3479200	-89.0776100	ROCKFORD N	STREAM
PZX-01	Hennepin Canal-Roc	2 mi n atkinson	Henry	17N	4E	23	41.4469000	-90.0105000	ATKINSON	STREAM
PZXA-01	U-Trib Hennepin Ca	Can feeder rt 92 4 m e yorktwn	Bureau	18N	6E	2	41.5691200	-89.7672500	YORKTOWN	STREAM
PZZB-11	Woodland Creek	Rd br 3mi sw byron (mosquito cr) rt 2 br 1	Ogle	24N	10E	11	42.0977778	-89.3024167	OREGON	STREAM
PZZC-01	Mosquito Creek	mi ds winbgo/ogle co	Ogle	25N	11E	15	42.1705083	-89.2034556	KISHWAUKEE	STREAM
PZZD-01	Canal Creek	1 mi us winbgo/ogle co line	Winnebago	43N	1E	19	42.1833400	-89.1590300	KISHWAUKEE	STREAM
PZZG-01	Spring Creek-North	Rockfd mouth spring cr	Winnebago	44N	1E	13	42.2902778	-89.0611111	ROCKFORD N	STREAM
PZZG-02	Spring Creek-North	Rockfd mt st francis conv	Winnebago	44N	2E	9	42.3047222	-89.0125000	ROCKFORD N	STREAM
PZZG-03	Spring Creek-North	Mcfarmland rd rockford	Winnebago	44N	2E	2	42.3131389	-88.9798889	CALEDONIA	STREAM
PZZI-01	Willow Creek	Us 51 rockford	Winnebago	45N	2E	19	42.3550000	-89.0437778	ROCKFORD N	STREAM
PZZI-02	Willow Creek	Rock ct st pk w pierce lk	Winnebago	45N	2E	27	42.3456111	-88.9990278	CALEDONIA	STREAM
PZZI-03	Willow Creek	2/3mi e 251 harlem	Winnebago	45N	2E	29	42.3542220	-89.0288889	ROCKFORD N	STREAM
PZZL-01	Rock Creek-Otter C	Dutchtn rd 2m nw	Carroll	23N	6E	21	41.9716300	-89.8127400	MILLEDGEVILLE	STREAM

		milledgevil									
PZZM-01	U-Trib Rock River	0.9m us winbgo/ogle	Winnebago	43N	1E	30	42.1770800	-89.1605900	KISHWAUKEE	STREAM	
PZZN-01	Sevenmile Branch	co line									
		2 mi e woosung	Ogle	22N	9E	7	41.9031083	-89.5049361	POLO	STREAM	
PB-A-A1	Green River	Green r 15 yds ups amboy stp discharge	Lee				41.6983370	-89.3416700		FRSS	
		Green r 0.2 mi dns amboy stp discharge									
PB-A-C1	Green River	and	Lee				41.6983370	-89.3416700		FRSS	
		Green r 1.3 mi dns amboy stp discharge									
PB-A-C2	Green River	and	Lee				41.6983370	-89.3416700		FRSS	
		Green r 1.9 mi dns amboy stp discharge									
PB-A-C3	Green River	and	Lee				41.6983370	-89.3416700		FRSS	
		Green r 4.2 mi dns amboy stp discharge									
PB-A-C4	Green River	and	Lee				41.6983370	-89.3416700		FRSS	
		Amboy stp discharge to green river									
PB-A-E	Green River		Lee				41.6983370	-89.3416700		FRSS	
		Mosquito cr 100yds ups orion stp at									
PBA-OR-A1	Mosquito Creek	bridge	Henry				41.3563920	-90.3808380		FRSS	
		Mosquito cr 100yds dns orion stp at									
PBA-OR-C1	Mosquito Creek	bridge	Henry				41.3600030	-90.3813920		FRSS	
PBA-OR-C1A	Mosquito Creek		Henry				41.3600030	-90.3813920		FRSS	
		Mosquito cr 1.5 mi dns orion stp									
PBA-OR-C2	Mosquito Creek		Henry				41.3763920	-90.3705600		FRSS	
		Mosquito cr 4.0 mi dns orion stp									
PBA-OR-C3	Mosquito Creek		Henry				41.4102810	-90.3752810		FRSS	
		Orion stp effluent to mosquito cr									
PBA-OR-E1	Mosquito Creek		Henry				41.3577810	-90.3808380		FRSS	
		Geneseo cr ups geneseo stp property									
PBE-GN-D1	Geneseo Creek		Henry				41.4600040	-90.1666710		FRSS	
		Geneseo cr elk st dns geneseo stp									
PBE-GN-D2	Geneseo Creek		Henry				41.4600040	-90.1666710		FRSS	
		Green r 1.3 mi ups geneseo stp									
PB-GN-A1	Green River	discharge	Henry				41.4600040	-90.1666710		FRSS	
PB-GN-C2	Green River	Green r 0.8 mi dns	Henry				41.4600040	-90.1666710		FRSS	

PB-GN-E1	Green River	geneseo stp discharge Geneseo stp discharge at pumping station to	Henry					41.4600040 -90.1666710	FRSS
P-BH-C6	Rock River	Rds 2 mi dns rock island pws outfall Rds 40 yds ups blackhawk cr	Rock island	17N	2W	13		41.4634300 -90.5668000 MILAN	FRSS
P-BH-D2	Rock River	confluence Rds 0.5 mi ups blackhawk cr	Rock island	17N	2W	13		41.4634400 -90.5658100 MILAN	FRSS
P-BH-D3	Rock River	confluence Coal cr 0.09 mi ups sheffield stp	Rock island	17N	2W	13		41.4630590 -90.5561150 MILAN	FRSS
PBJA-S-A1	Coal Creek	discharge Coal cr 0.01 mi dns sheffield stp outfall	Bureau					41.3619480 -89.7463930	FRSS
PBJA-S-C1	Coal Creek	Coal cr 0.3 mi dns sheffield stp discharge	Bureau					41.3622260 -89.7466700	FRSS
PBJA-S-C2	Coal Creek	Coal cr 2.9 mi dns sheffield stp discharge	Bureau					41.3650030 -89.7508370	FRSS
PBJA-S-C3	Coal Creek	Sheffield stp discharge to coal creek	Bureau					41.3880590 -89.7841710	FRSS
PBJA-S-E	Coal Creek	Buda cr dns side n-s rd ne high school vicinity	Bureau					41.3619480 -89.7461160	FRSS
PBJZ-B-A1	Buda Creek	Buda cr ups side state rt 40 nnw high school	Bureau					41.3325030 -89.6805590	FRSS
PBJZ-B-C1	Buda Creek	Woodhaven trib 0.6 mi ups confl green river and	Bureau					41.3352810 -89.6850050	FRSS
PBV-A-D1	Woodhaven Tributary	Un trib a 30 yds ups consumers il- woodhaven	Lee					41.6983370 -89.3416700	FRSS
PBVA-WL-A1	Woodhvn-Unam Trib	Un trib a 150 yds dns consumers il- woodhaven	Lee					41.6600030 -89.2950040	FRSS
PBVA-WL-C1	Woodhvn-Unam Trib		Lee					41.6600030 -89.2950040	FRSS

PBVA-WL-E	Woodhvn-Unam Trib	Consumers il-woodhaven lakes stp disch to un	Lee	41.6600030 -89.2950040	FRSS
PBVB-WL-D2	Woodhvn-Unam Trib	Un trib b 1.1 mi ups confl woodhaven trib at	Lee	41.6600030 -89.2950040	FRSS
PBV-WL-C2	Woodhaven Tributary	Woodhaven trib 1.1 mi dns consumers il-woodhaven	Lee	41.6600030 -89.2950040	FRSS
PBV-WL-C3	Woodhaven Tributary	Woodhaven trib 2.0 mi dns consumers il-woodhaven	Lee	41.6600030 -89.2950040	FRSS
PBV-WL-C4	Woodhaven Tributary	Woodhaven trib 3.3 mi dns consumers il-woodhaven	Lee	41.6600030 -89.2950040	FRSS
PBV-WL-C5	Woodhaven Tributary	Woodhaven trib 4.5 mi dns consumers il-woodhaven	Lee	41.6600030 -89.2950040	FRSS
PBV-WL-D1	Woodhaven Tributary	Woodhaven trib 30 yds ups confl w un trib a	Lee	41.6600030 -89.2950040	FRSS
P-D-A1	Rock River	Rock r 20 yds ups dixon stp discharge (lds)	Lee	41.8361150 -89.5116700	FRSS
P-D-C1	Rock River	Rock r 30 yds dns dixon stp discharge (lds)	Lee	41.8355590 -89.5127820	FRSS
P-D-C2	Rock River	Rock r 80 yds dns dixon stp discharge (lds)	Lee	41.8352810 -89.5136150	FRSS
P-D-C3	Rock River	Rock r 270yds dns dixon stp discharge (lds)	Lee	41.8341710 -89.5158370	FRSS
P-D-E	Rock River	Dixon stp discharge to rock river	Lee	41.8358370 -89.5122260	FRSS
PE-C-C4	Rock Creek	Rock cr 2.6 mi dns chadwick stp discharge 0.2 mi	Carroll	42.0033370 -89.8850040	FRSS
PE-C-C5	Rock Creek	Rock cr 4.5 mi dns chadwick stp discharge 2.1 mi	Carroll	42.0033370 -89.8850040	FRSS

PE-C-D1	Rock Creek	Rock cr 0.1 mi ups confl chadwick cr 10 yds dns	Carroll	42.0033370 -89.8850040	FRSS
PEG-C-C1	Chadwick Creek	Chadwick cr 100 yds dns chadwick stp discharge	Carroll	42.0033370 -89.8850040	FRSS
PEG-C-C2	Chadwick Creek	Chadwick cr 0.8 mi dns chadwick stp discharge	Carroll	42.0033370 -89.8850040	FRSS
PEG-C-C3	Chadwick Creek	Chadwick cr 2.0 mi dns chadwick stp discharge	Carroll	42.0033370 -89.8850040	FRSS
PEG-C-E	Chadwick Creek	Chadwick stp discharge to chadwick creek	Carroll	42.0033370 -89.8850040	FRSS
PE-M-A1	Rock Creek	Rock cr 10 yds ups morrison stp discharge	Whiteside	41.8055590 -89.9755600	FRSS
PE-M-C1	Rock Creek	Rock cr 30 yds dns morrison stp discharge	Whiteside	41.8030590 -89.9747270	FRSS
PE-M-C2	Rock Creek	Rock cr 0.6 mi dns morrison stp discharge	Whiteside	41.7972260 -89.9722260	FRSS
PE-M-E	Rock Creek	Morrison stp discharge to rock creek	Whiteside	41.8044480 -89.9750040	FRSS
PFCA-T-A1	Tampico Creek	Tampico cr 20 ft ups tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFCA-T-C1	Tampico Creek	Tampico cr 0.1 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFCA-T-C2	Tampico Creek	Tampico cr 0.4 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFCA-T-C3	Tampico Creek	Tampico cr 1.4 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFCA-T-E	Tampico Creek	Tampico stp discharge to tampico creek	Whiteside	41.6250050 -89.7966700	FRSS
PFCB-T-D2	Kropf Creek	Kropf cr 0.75 mi ups confl county ditch #2	Whiteside	41.6250050 -89.7966700	FRSS

PFC-T-C4	County Ditch #2	County ditch #2 2.5 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFC-T-C5	County Ditch #2	County ditch #2 3.5 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFC-T-C6	County Ditch #2	County ditch #2 5.7 mi dns tampico stp outfall	Whiteside	41.6250050 -89.7966700	FRSS
PFC-T-D1	County Ditch #2	County ditch #2 0.05 mi ups confl tampico cr	Whiteside	41.6250050 -89.7966700	FRSS
PHEA-P-D1	Typer Creek	Typer cr 15 yds ups confl buffalo creek	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-A1	Buffalo Creek	Buffalo cr 30 yds ups polo stp discharge 20 yds	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-C1	Buffalo Creek	Buffalo cr 0.3 mi dns polo stp discharge	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-C2	Buffalo Creek	Buffalo cr 0.7 mi dns polo stp discharge	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-C3	Buffalo Creek	Buffalo cr 1.5 mi dns polo stp discharge 30 yds	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-C4	Buffalo Creek	Buffalo cr 2.7 mi dns polo stp discharge 10 yds	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-C5	Buffalo Creek	Buffalo cr 8.4 mi dns polo stp discharge 30 yds	Ogle	41.9866710 -89.6000040	FRSS
PHE-P-E	Buffalo Creek	Polo stp discharge to buffalo creek	Ogle	41.9866710 -89.6000040	FRSS
PH-M-A1	Elkhorn Creek	Elkhorn cr 10 ft ups milledgeville discharge	Carroll	41.9633370 -89.7733370	FRSS
PH-M-C1	Elkhorn Creek	Elkhorn cr 70 yds dns milledgeville discharge	Carroll	41.9633370 -89.7733370	FRSS
PH-M-C2	Elkhorn Creek	Elkhorn cr 0.2 mi dns milledgeville discharge	Carroll	41.9633370 -89.7733370	FRSS

PH-M-C3	Elkhorn Creek	Elkhorn cr 3.1 mi dns milledgeville discharge	Carroll	41.9633370 -89.7733370	FRSS
PH-M-C4	Elkhorn Creek	Elkhorn cr 4.3 mi dns milledgeville discharge	Carroll	41.9633370 -89.7733370	FRSS
PH-M-C5	Elkhorn Creek	Elkhorn cr 9.9 mi dns milledgeville discharge	Whiteside	41.9027810 -89.6944480	FRSS
PH-M-E	Elkhorn Creek	Milledgeville stw discharge to elkhorn creek	Carroll	41.9633370 -89.7733370	FRSS
P-IB-A1	Rock River	Rock r 450 ft ups discharge midstream	Rock island	41.5350030 -90.2233370	FRSS
P-IB-A2	Rock River	Rock r 50 ft ups iowa beef packers eff disch rds	Rock island	41.5350030 -90.2227810	FRSS
P-IB-C1	Rock River	Rock r 200 ft right dns side of discharge	Rock island	41.5350030 -90.2233370	FRSS
P-IB-C2	Rock River	Rock r 600 ft right dns side of discharge	Rock island	41.5350030 -90.2233370	FRSS
P-IB-C3	Rock River	Rock r 1000 ft right dns side of discharge	Rock island	41.5350030 -90.2233370	FRSS
P-IB-C4	Rock River	Rock r 2000 ft right dns side of discharge	Rock island	41.5350030 -90.2233370	FRSS
P-IB-C4A	Rock River	Rock r 2500ft dns iowa beef packers eff disc rds	Rock island	41.5300040 -90.2272260	FRSS
P-IB-C5	Rock River	Rock r 1000 ft dns of discharge midstream	Rock island	41.5350030 -90.2233370	FRSS
P-IB-E	Rock River	iowa beef packers outfall discharge to rock r	Rock island	41.5350030 -90.2233370	FRSS
PJBA-MM-C1	Coon-Mt Morris Crn	Mt morris cr n 350 yds dns mt morris stp disch	Ogle	42.0600040 -89.4350050	FRSS
PJBA-MM-C2	Coon-Mt Morris Crn	Mt morris cr n 1.0 mi dns mt morris stp disch	Ogle	42.0600040 -89.4350050	FRSS
PJBA-MM-C3	Coon-Mt Morris Crn	Mt morris cr n 1.8 mi dns mt morris stp	Ogle	42.0600040 -89.4350050	FRSS

		disch			
PJBA-MM-E1	Coon-Mt Morris Crn	Mt morris outfall to mt morris creek north	Ogle	42.0600040 -89.4350050	FRSS
PJBC-MM-D1	Mt Morr N-Johnsn C	Johnson cr 50 yds ups confl mt morris cr north	Ogle	42.0600040 -89.4350050	FRSS
PJB-MM-C4	Coon Creek	Coon cr 3.5 mi dns mt morris stp disch 75 yds	Ogle	42.0600040 -89.4350050	FRSS
PJB-MM-D2	Coon Creek	Coon cr 0.75 mi ups confl mt morris cr n 20 yds	Ogle	42.0600040 -89.4350050	FRSS
PLB-A-A1	Beach Creek	Beach cr 0.006 mi ups ashton stp discharge	Lee	41.8616710 -89.2150040	FRSS
PLBA-A-D1	S Br Beach Creek	So br 10 yds dns beach road	Lee	41.8616710 -89.2150040	FRSS
PLB-A-C1	Beach Creek	Beach cr 0.1 mi dns ashton stp discharge	Lee	41.8616710 -89.2150040	FRSS
PLB-A-C2	Beach Creek	Beach cr 0.5 mi dns ashton stp discharge	Lee	41.8616710 -89.2150040	FRSS
PLB-A-C3	Beach Creek	Beach cr 1.5 mi dns ashton stp discharge	Lee	41.8616710 -89.2150040	FRSS
PLB-A-C4	Beach Creek	Beach cr 2.5 mi dns ashton stp discharge	Lee	41.8616710 -89.2150040	FRSS
PLB-A-E	Beach Creek	Ashton stp discharge to beach creek	Lee	41.8616710 -89.2150040	FRSS
P-MS-A1	Rock River	Rock r ups moline s stp discharge at i74	Rock island	41.4644480 -90.4977820	FRSS
P-MS-A2	Rock River	Rock r 1.75mi ups moline s stp disc green val pk	Rock island	41.4644480 -90.4977820	FRSS
P-MS-C1	Rock River	Rock r 100 yds dns moline s stp discharge	Rock island	41.4611150 -90.4994480	FRSS
P-MS-C1A	Rock River	Rock r 300 yds dns moline s stp discharge	Rock island	41.4611150 -90.4994480	FRSS
P-MS-C1B	Rock River	Rock r rds 40ft from moline s effl outfall	Rock island	41.4644480 -90.4977820	FRSS



P-MS-C1C	Rock River	Rock r rds 300yds dns moline s effl outfall at	Rock island	41.4644480 -90.4977820	FRSS
P-MS-C2	Rock River	Rock r .5mi dns moline s stp disc	Rock island	41.4644480 -90.4977820	FRSS
P-MS-C2A	Rock River	100ft ups slou	Rock island	41.4644480 -90.4977820	FRSS
P-MS-C3	Rock River	Rock r 1.5 mi dns moline s stp discharge	Rock island	41.4644480 -90.4977820	FRSS
P-MS-C4	Rock River	Rock r 2.5 mi dns moline s stp discharge	Rock island	41.4602810 -90.5516700	FRSS
P-MS-E1	Rock River	Rock r moline s stp discharge 4	Rock island	41.4644480 -90.4977820	FRSS
PNAB-GV-A1	German Valley Trib	German valley trib 0.01mi ups german valley stp	Stephenson	42.2150030 -89.4816700	FRSS
PNAB-GV-C1	German Valley Trib	German valley trib 0.15mi dns german valley stp	Stephenson	42.2150030 -89.4816700	FRSS
PNAB-GV-C2	German Valley Trib	German valley trib 0.6 mi dns german valley stp	Stephenson	42.2150030 -89.4816700	FRSS
PNAB-GV-C3	German Valley Trib	German valley trib 1.7 mi dns german valley stp	Stephenson	42.2150030 -89.4816700	FRSS
PNAB-GV-C4	German Valley Trib	German valley trib 3.1 mi dns german valley stp	Ogle	42.2150030 -89.4816700	FRSS
PNAB-GV-E	German Valley Trib	German valley stp disch to german valley trib	Stephenson	42.2150030 -89.4816700	FRSS
PNA-LR-D1	Mud River	Mud cr 30 yds ups confluence leaf river	Ogle	42.1283370 -89.4066700	FRSS
PNBA-F-D1	Shellhouse Creek	Shellhouse cr 10 yds dns route 72	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-A1	Forreston Creek	Forreston cr 25 yds ups forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS

PNB-F-C1	Forreston Creek	Forreston cr 0.09mi dns forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-C2	Forreston Creek	Forreston cr 0.6 mi dns forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-C3	Forreston Creek	Forreston cr 1.1 mi dns forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-C4	Forreston Creek	Forreston cr 2.3 mi dns forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-C5	Forreston Creek	Forreston cr 3.4 mi dns forreston stp discharge	Ogle	42.1316700 -89.2783380	FRSS
PNB-F-E	Forreston Creek	Forreston stp discharge to forreston creek	Ogle	42.1316700 -89.2783380	FRSS
PN-LR-A1	Leaf River	Leaf r 60 yds ups leaf r stp discharge	Ogle	42.1283370 -89.4066700	FRSS
PN-LR-C1	Leaf River	Leaf r 75 yds dns leaf r stp discharge	Ogle	42.1283370 -89.4066700	FRSS
PN-LR-C2	Leaf River	Leaf r 0.5 mi dns leaf r stp discharge 100 yds	Ogle	42.1283370 -89.4066700	FRSS
PN-LR-C3	Leaf River	Leaf r 1.9 mi dns leaf r stp discharge at town	Ogle	42.1283370 -89.4066700	FRSS
PN-LR-C4	Leaf River	Leaf r 2.9 mi dns leaf r stp discharge 30 yds	Ogle	42.1283370 -89.4066700	FRSS
PN-LR-E	Leaf River	Leaf r stp effluent	Ogle	42.1283370 -89.4066700	FRSS
PO-S-C1	Mill Creek-North	Mill cr 0.1 mi dns seward sd discharge	Winnebago	42.2327810 -89.3555600	FRSS
PO-S-C2	Mill Creek-North	Mill cr 0.4 mi dns seward sd discharge	Winnebago	42.2297260 -89.3527820	FRSS
PO-S-C3	Mill Creek-North	Mill cr 1.4 mi dns seward sd discharge	Winnebago	42.2169480 -89.3516700	FRSS
PO-S-C4	Mill Creek-North	Mill cr 3.0 mi dns seward sd discharge	Winnebago	42.2025040 -89.3308370	FRSS
PO-S-E	Mill Creek-North	Seward sd discharge to mill creek	Winnebago	42.2341700 -89.3558370	FRSS

PP-SV-A1	Stillman Creek	Stillman cr 125 yds ups stillman valley stp disc	Ogle	42.1100030 -89.1783370	FRSS
PP-SV-C1	Stillman Creek	Stillman cr 0.15 mi dns stillman valley stp disc	Ogle	42.1100030 -89.1783370	FRSS
PP-SV-C2	Stillman Creek	Stillman cr 1.1 mi dns stillman valley stp disc	Ogle	42.1100030 -89.1783370	FRSS
PP-SV-C3	Stillman Creek	Stillman cr 2.8 mi dns stillman valley stp disc	Ogle	42.1100030 -89.1783370	FRSS
PP-SV-E	Stillman Creek	Stillman valley stp disc to stillman cr	Ogle	42.1100030 -89.1783370	FRSS
PQ-B-A1	Kishwaukee River	Kishwaukee r 0.1 mi ups belvidere discharge	Boone	42.2583370 -88.8666700	FRSS
PQBA-M-C7	East Branch	E br killbuck cr 3.5mi dns malta stp disch 2.8mi	Ogle	41.9316710 -88.8966710	FRSS
PQBA-M-C8	East Branch	E br killbuck cr 5.3 mi dns malta stp disch 4.6	Ogle	41.9316710 -88.8966710	FRSS
PQBA-M-C9	East Branch	E br killbuck cr 7.9 mi dns malta stp disch 7.2	Ogle	41.9316710 -88.8966710	FRSS
PQBA-M-D1	East Branch	E br killbuck cr 40 yds ups rt 38	De kalb	41.9316710 -88.8966710	FRSS
PQBB-KC-E1	E Br-Malta Trib	Kishwaukee college discharge to malta trib of e	De kalb	41.9316710 -88.8966710	FRSS
PQBB-KC-E2	E Br-Malta Trib	Kishwaukee college discharge to malta trib of e	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-C1	E Br-Malta Trib	Malta trib of e br killbuck cr 100 yds dns malta	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-C2	E Br-Malta Trib	Malta trib of e br killbuck cr 0.2 mi dns malta	De kalb	41.9316710 -88.8966710	FRSS

PQBB-M-C3	E Br-Malta Trib	Malta trib of e br killbuck cr 0.65 mi dns malta	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-C4	E Br-Malta Trib	Malta trib of e br killbuck cr 0.7 mi dns malta	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-C5	E Br-Malta Trib	Malta trib of e br killbuck cr 1.3 mi dns malta	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-C6	E Br-Malta Trib	Malta trib of e br killbuck cr 2.3 mi dns malta	De kalb	41.9316710 -88.8966710	FRSS
PQBB-M-E	E Br-Malta Trib	Malta stp discharge to malta trib of e br kill- Kishwaukee r 0.3 mi dns belvidere	De kalb	41.9316710 -88.8966710	FRSS
PQ-B-C1	Kishwaukee River	discharge	Boone	42.2583370 -88.8666700	FRSS
PQ-B-C2	Kishwaukee River	Kishwaukee r 5.0 mi dns belvidere discharge	Boone	42.2555590 -88.9286150	FRSS
PQBC-M-D2	E Br Dreily Trib	Dreily trib of e br killbuck cr 5 ft dns co line	Ogle	41.9316710 -88.8966710	FRSS
PQBD-M-D3	E Br-Creston Trib	Creston trib of e br killbuck cr 20 yds dns Belvidere stp discharge to	Ogle	41.9316710 -88.8966710	FRSS
PQ-B-E	Kishwaukee River	kishwaukee river Davis junction cr 1.3 mi dns proposed	Boone	42.2583370 -88.8666700	FRSS
PQBF-DJ-C2	Davis Junction Cr	davis jct	Ogle	42.0963920 -89.0761150	FRSS
PQBF-DJ-C3	Davis Junction Cr	Davis junction cr 3.0 mi dns proposed davis jct	Ogle	42.0966700 -89.0563920	FRSS
PQCE-G-D1	Deer Creek	Deer cr 0.8 mi ups confl so br kishwaukee r and	De kalb	42.0983370 -88.7050030	FRSS
PQC-G-A1	S Br Kishwaukee R	So br kishwaukee r 1.4 mi dns genoa stp disch	De kalb	42.0983370 -88.7050030	FRSS

PQC-G-C1	S Br Kishwaukee R	So br kishwaukee r 0.1 mi dns genoa stp disch	De kalb	42.0983370 -88.7050030	FRSS
PQC-G-C2	S Br Kishwaukee R	So br kishwaukee r 0.8 mi dns genoa stp disch	De kalb	42.0983370 -88.7050030	FRSS
PQC-G-C3	S Br Kishwaukee R	So br kishwaukee r 2.4 mi dns genoa stp disch	De kalb	42.0983370 -88.7050030	FRSS
PQC-G-C4	S Br Kishwaukee R	So br kishwaukee r 3.7 mi dns genoa stp disch	De kalb	42.0983370 -88.7050030	FRSS
PQC-G-E	S Br Kishwaukee R	Genoa stp discharge to so br kishwaukee river	De kalb	42.0983370 -88.7050030	FRSS
PQDB-CI-A1	Spring Brook	Spring brook 67 yds dns boone co lk ups proposed	Boone	42.3452820 -88.8636160	FRSS
PQDB-CI-C1	Spring Brook	Spring brook 1.3 mi dns boone co lk at orth road	Boone	42.3275040 -88.8588920	FRSS
PQD-B-D1	Beaver Creek	Beaver cr at business rt 20	Boone	42.2758370 -88.9152820	FRSS
PQD-C-A1	Beaver Creek	Beaver cr 25 yds ups capron mwwtp discharge	Boone	42.3758370 -88.7791700	FRSS
PQD-C-C1	Beaver Creek	Beaver cr 33 yds dns capron mwwtp discharge	Boone	42.3752810 -88.7786150	FRSS
PQD-C-C2	Beaver Creek	Beaver cr 1.3 mi dns capron mwwtp discharge	Boone	42.3638920 -88.7936150	FRSS
PQD-C-E	Beaver Creek	Capron mwwtp discharge to beaver creek	Boone	42.3755590 -88.7788920	FRSS
PQEA-H-A1	Moakler Creek	Mokeler cr 0.06mi ups harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS
PQEA-H-C1	Moakler Creek	Mokeler cr 0.2 mi dns harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS
PQEA-H-C2	Moakler Creek	Mokeler cr 0.5 mi dns harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS

PQEA-H-C3	Moakler Creek	Mokeler cr 1.2 mi dns harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS
PQEA-H-C4	Moakler Creek	Mokeler cr 2.8 mi dns harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS
PQEA-H-C5	Moakler Creek	Mokeler cr 4.6 mi dns harvard stp discharge	Mchenry	42.4133370 -88.6266700	FRSS
PQEA-H-E	Moakler Creek	Harvard stp discharge to mokeler creek	Mchenry	42.4133370 -88.6266700	FRSS
PQEC-BF-A1	Lawrence Creek	Lawrence cr 10 yds ups big foot cattle co disch	Mchenry	42.4875040 -88.6005600	FRSS
PQEC-BF-C1	Lawrence Creek	Lawrence cr 75 yds dns big foot cattle co disch	Mchenry	42.4866710 -88.6011160	FRSS
PQEC-BF-C2	Lawrence Creek	Lawrence cr 0.17mi dns big foot cattle co disch	Mchenry	42.4866710 -88.6041710	FRSS
PQEC-BF-C3	Lawrence Creek	Lawrence cr 0.92mi dns big foot cattle co disch	Mchenry	42.4800040 -88.6127810	FRSS
PQEC-BF-E1	Lawrence Creek	Big foot cattle co discharge to lawrence creek	Mchenry	42.4872260 -88.6005600	FRSS
PQEC-BF-E2	Lawrence Creek	Gravel pit disch to lawrence cr 0.3 mi dns big	Mchenry	42.4858380 -88.6058370	FRSS
PQE-DF-A1	Piscasaw Creek	Piscasaw cr 0.06mi ups dean foods disch ditch	Mchenry	42.4183370 -88.6700040	FRSS
PQE-DF-C1	Piscasaw Creek	Piscasaw cr 0.04mi dns dean foods disch ditch	Mchenry	42.4166700 -88.6702810	FRSS
PQE-DF-E	Piscasaw Creek	Dean foods disch to ditch trib to piscasaw cr	Mchenry	42.4175040 -88.6688930	FRSS
PQFC-H-C5	Burlington Creek	Burlington cr 4.5 mi dns hampshire stp discharge	De kalb	42.1000030 -88.5416710	FRSS
PQFD-H-A1	Hampshire Creek	Hampshire cr 0.06mi ups hampshire stp discharge	Kane	42.1000030 -88.5416710	FRSS

PQFD-H-C1	Hampshire Creek	Hampshire cr 0.15mi dns hampshire stp discharge	Kane					42.1000030 -88.5416710		FRSS
PQFD-H-C2	Hampshire Creek	Hampshire cr 0.3 mi dns hampshire stp discharge	Kane					42.1000030 -88.5416710		FRSS
PQFD-H-C3	Hampshire Creek	Hampshire cr 1.0 mi dns hampshire stp discharge	Kane					42.1000030 -88.5416710		FRSS
PQFD-H-C4	Hampshire Creek	Hampshire cr 2.4 mi dns hampshire stp discharge	Kane					42.1000030 -88.5416710		FRSS
PQFD-H-E	Hampshire Creek	Hampshire stp discharge to hampshire creek	Kane					42.1000030 -88.5416710		FRSS
PQFE-H-D1	Hampshire So Branc	So br hampshire cr 30 yds ups confl hampshire cr	Kane					42.1000030 -88.5416710		FRSS
PQIB-H-C1	Huntley Ditch	Huntley ditch 0.02mi dns huntley stp discharge	Mchenry					42.1666700 -88.4166710		FRSS
PQIB-H-C2	Huntley Ditch	Huntley ditch 0.3 mi dns huntley stp discharge	Mchenry					42.1666700 -88.4166710		FRSS
PQIB-H-E	Huntley Ditch	Huntley stp discharge to huntley ditch	Mchenry					42.1666700 -88.4166710		FRSS
PQIC-H-D2	Eakin Creek	Eakin cr 0.2 mi ups confl so br fk so br	Mchenry					42.1666700 -88.4166710		FRSS
PQI-H-C3	South Branch-East	0.4 mi dns huntley stp disch at	Mchenry					42.1666700 -88.4166710		FRSS
PQI-H-C4	South Branch-East	1.2 mi dns huntley stp disch at	Mchenry					42.1666700 -88.4166710		FRSS
PQI-H-C5	South Branch-East	2.9 mi dns huntley stp discharge	Mchenry					42.1666700 -88.4166710		FRSS
PQI-H-D1	South Branch-East	0.01 mi ups confl huntley ditch	Mchenry					42.1666700 -88.4166710		FRSS
PQI-HW-A1	South Branch-East	0.01 mi ups huntley stp discharge	Mchenry	43N	7E	32		42.1651639 -88.4452833 HUNTLEY		FRSS
PQI-HW-C1	South Branch-East	0.01 mi dns huntley stp discharge	Mchenry	43N	7E	32		42.1663861 -88.4463556 HUNTLEY		FRSS
PQI-HW-E	South Branch-East	Huntley stp effluent	Mchenry	43N	7E	32		42.1656250 -88.4453583 HUNTLEY		FRSS

PQ-WS-A1	Kishwaukee River	Kishwaukee r 0.07mi ups woodstock so mwwtp disch	Mchenry	42.2902820 -88.4405600	FRSS
PQ-WS-C1	Kishwaukee River	Kishwaukee r 0.6 mi dns woodstock so mwwtp disch	Mchenry	42.2844480 -88.4277820	FRSS
PQ-WS-C2	Kishwaukee River	Kishwaukee r 2.4 mi dns woodstock so mwwtp disch	Mchenry	42.2713920 -88.3991700	FRSS
PQ-WS-C3	Kishwaukee River	Kishwaukee r 3.9 mi dns woodstock so mwwtp disch	Mchenry	42.2575030 -88.3869490	FRSS
PQ-WS-E	Kishwaukee River	Woodstock so mwwtp discharge to kishwaukee r	Mchenry	42.2886160 -88.4394480	FRSS
P-R-A1	Rock River	Rock r 50 yds ups rock falls stp discharge 12th	Whiteside	41.7813930 -89.7063920	FRSS
P-R-C1	Rock River	Rock r 40 yds dns rock falls stp discharge (lds)	Whiteside	41.7805600 -89.7077810	FRSS
P-R-C2	Rock River	Rock r 130yds dns rock falls stp discharge (lds)	Whiteside	41.7802810 -89.7083380	FRSS
P-R-E	Rock River	Rock falls stp discharge to rock river	Whiteside	41.7813930 -89.7069480	FRSS
P-S-A1	Rock River	Rock r 25 yds ups sterling stp discharge	Whiteside	41.7875040 -89.7238930	FRSS
P-S-C1	Rock River	Rock r 18 yds dns sterling stp discharge	Whiteside	41.7883370 -89.7255600	FRSS
P-S-C2	Rock River	Rock r 100 yds dns sterling stp discharge	Whiteside	41.7883370 -89.7263920	FRSS
P-S-C3	Rock River	Rock r 0.3 mi dns sterling stp discharge	Whiteside	41.7883370 -89.7294480	FRSS
P-S-E	Rock River	Sterling stp discharge to rock river	Whiteside	41.7883370 -89.7250040	FRSS
PU-WE-A1	No Kinnikinnik Cre	N kinnikinnick cr 15yds ups warner elec stp disc	Winnebago	42.4316710 -89.0066710	FRSS
PU-WE-C1	No Kinnikinnik Cre	N kinnikinnick cr 0.1mi dns warner elec	Winnebago	42.4316710 -89.0066710	FRSS



		stp disc			
		N kinnikinnick cr 0.6mi dns warner elec			
PU-WE-C2	No Kinnikinnick Cre	stp disc	Winnebago	42.4316710 -89.0066710	FRSS
		N kinnikinnick cr 0.9mi dns warner elec			
PU-WE-C3	No Kinnikinnick Cre	stp disc	Winnebago	42.4316710 -89.0066710	FRSS
		Warner electric stp disc to n kinnikinnick			
PU-WE-E	No Kinnikinnick Cre	cr	Winnebago	42.4316710 -89.0066710	FRSS
		Otter cr 0.5 mi dns durand stp discharge			
PWBA-D-C2	Otter Creek	and	Winnebago	42.4400030 -89.3166700	FRSS
		Otter cr 2.2 mi dns durand stp discharge			
PWBA-D-C3	Otter Creek	and	Winnebago	42.4400030 -89.3166700	FRSS
		N br otter cr 30 yds ups durand stp			
PWBB-D-A1	Otter Cr-No Branch	discharge	Winnebago	42.4400030 -89.3166700	FRSS
		N br otter cr 0.3 mi dns durand stp			
PWBB-D-C1	Otter Cr-No Branch	discharge	Winnebago	42.4400030 -89.3166700	FRSS
		Durand stp discharge to n br otter creek			
PWBB-D-E	Otter Cr-No Branch		Winnebago	42.4400030 -89.3166700	FRSS
		S br otter cr 1.7 mi ups confl otter creek			
PWBC-D-D1	Otter Cr-So Branch	and	Winnebago	42.4400030 -89.3166700	FRSS
		Coolidge cr 50 yds ups winnebago stp			
PWF-W-A1	Coolidge Creek	discharge	Winnebago	42.2650040 -89.2500050	FRSS
		Coolidge cr 0.1 mi dns winnebago stp			
PWF-W-C1	Coolidge Creek	discharge	Winnebago	42.2650040 -89.2500050	FRSS
		Coolidge cr 0.6 mi dns winnebago stp			
PWF-W-C2	Coolidge Creek	discharge	Winnebago	42.2650040 -89.2500050	FRSS
		Coolidge cr 1.6 mi dns winnebago stp			
PWF-W-C3	Coolidge Creek	discharge	Winnebago	42.2650040 -89.2500050	FRSS

PWF-W-C4	Coolidge Creek	Coolidge cr 2.7 mi dns winnebago stp discharge	Winnebago	42.2650040 -89.2500050	FRSS
PWF-W-C5	Coolidge Creek	Coolidge cr 4.9 mi dns winnebago stp discharge	Winnebago	42.2650040 -89.2500050	FRSS
PWF-W-E	Coolidge Creek	Winnebago stp discharge to collidge creek	Winnebago	42.2650040 -89.2500050	FRSS
PWF-WL-A1	Coolidge Creek	Coolidge cr 2.9 mi ups proposed westlake village	Winnebago	42.2836150 -89.2783380	FRSS
PWF-WL-C1	Coolidge Creek	Coolidge cr dns saunders rd br and construction	Winnebago	42.3188920 -89.2847260	FRSS
PWF-WL-C2	Coolidge Creek	Coolidge cr 1.9 mi dns proposed westlake village	Winnebago	42.3400050 -89.2897260	FRSS
PWL-D-C1	Winneshiek Creek	Winneshiek cr 0.09 mi dns dakota stp discharge	Stephenson	42.3800030 -89.5166700	FRSS
PWL-D-C2	Winneshiek Creek	Winneshiek cr 0.30 mi dns dakota stp discharge	Stephenson	42.3800030 -89.5166700	FRSS
PWL-D-C3	Winneshiek Creek	Winneshiek cr 1.50 mi dns dakota stp discharge	Stephenson	42.3800030 -89.5166700	FRSS
PWL-D-C4	Winneshiek Creek	Winneshiek cr 3.00 mi dns dakota stp discharge	Stephenson	42.3800030 -89.5166700	FRSS
PWL-D-C5	Winneshiek Creek	Winneshiek cr 5.00 mi dns dakota stp discharge	Stephenson	42.3800030 -89.5166700	FRSS
PWL-D-E	Winneshiek Creek	Dakota stp discharge to winneshiek creek	Stephenson	42.3800030 -89.5166700	FRSS
PWNB-PC-D2	Lost Creek	Lost cr 0.5 mi ups confl yellow cr at mill grove	Stephenson	42.2700030 -89.8216700	FRSS
PWNC-PC-D1	Spring Branch	Spring cr 1.1 mi ups confl yellow cr at schuman	Stephenson	42.2700030 -89.8216700	FRSS

PWNE-L-C1	Lena Creek	Lena cr 15 yds dns lena stp discharge	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C2	Lena Creek	Lena cr 0.15 mi dns lena stp discharge 30 yds ups	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C3	Lena Creek	Lena cr 0.4 mi dns lena stp discharge 10 ft dns	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C4	Lena Creek	Lena cr 1.0 mi dns lena stp discharge 25 yds ups	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C5	Lena Creek	Lena cr 1.25mi dns lena stp discharge 15 ft ups	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C6	Lena Creek	Lena cr 1.8 mi dns lena stp discharge 25 yds dns	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C7	Lena Creek	Lena cr 2.9 mi dns lena stp discharge 30 yds ups	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-C8	Lena Creek	Lena cr 4.5 mi dns lena stp discharge 100 yds	Stephenson	42.3633370 -89.8200040	FRSS
PWNE-L-E	Lena Creek	Lena stp discharge to lena creek	Stephenson	42.3633370 -89.8200040	FRSS
PWNF-L-D1	Lena-Kempel Trib	Kempel trib of lena cr 75 yds ups confl lena cr	Stephenson	42.3633370 -89.8200040	FRSS
PWNG-L-D2	Lena-Huneke Trib	Huneke trib of lena cr 30 yds ups confl lena cr	Stephenson	42.3633370 -89.8200040	FRSS
PWNH-L-D3	Lena Cr-East Branc	E br of lena cr 25 yds ups confl lena cr	Stephenson	42.3633370 -89.8200040	FRSS
PWNI-L-D4	Lena-W Dameier Tri	W dameier trib of lena cr 20 yds ups confl lena	Stephenson	42.3633370 -89.8200040	FRSS
PWNJ-L-D5	Lena-Baumgrtnr Tri	Baumgartner trib of lena cr 15 yds ups confl	Stephenson	42.3633370 -89.8200040	FRSS
PWN-PC-A1	Yellow Creek	Yellow cr 0.1 mi ups pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS

PWN-PC-C1	Yellow Creek	Yellow cr 0.2 mi dns pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS
PWN-PC-C2	Yellow Creek	Yellow cr 0.7 mi dns pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS
PWN-PC-C3	Yellow Creek	Yellow cr 1.5 mi dns pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS
PWN-PC-C4	Yellow Creek	Yellow cr 3.7 mi dns pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS
PWN-PC-C5	Yellow Creek	Yellow cr 5.4 mi dns pearl city stp discharge	Stephenson	42.2700030 -89.8216700	FRSS
PWN-PC-E	Yellow Creek	Pearl city stp discharge to yellow creek	Stephenson	42.2700030 -89.8216700	FRSS
PWPA-C-C3	Cedar Creek	Cedar cr 0.7 mi dns cedarville stp discharge	Stephenson	42.3700040 -89.6400040	FRSS
PWPA-C-C4	Cedar Creek	Cedar cr 1.5 mi dns cedarville stp discharge	Stephenson	42.3700040 -89.6400040	FRSS
PWPA-C-D1	Cedar Creek	Cedar cr 0.15 mi ups conflu e br cedar creek	Stephenson	42.3700040 -89.6400040	FRSS
PWPB-O-D1	Brush Creek	Brush cr 15 yds dns brush creek road	Stephenson	42.4650050 -89.6483370	FRSS
PWPD-C-A1	E Br Cedar Creek	E br cedar cr 0.40 mi ups cedarville stp disch	Stephenson	42.3700040 -89.6400040	FRSS
PWPD-C-C1	E Br Cedar Creek	E br cedar cr 0.15 mi dns cedarville stp disch	Stephenson	42.3700040 -89.6400040	FRSS
PWPD-C-C2	E Br Cedar Creek	E br cedar cr 0.50 mi dns cedarville stp disch	Stephenson	42.3700040 -89.6400040	FRSS
PWPD-C-E	E Br Cedar Creek	Cedarville stp discharge to e br cedar creek	Stephenson	42.3700040 -89.6400040	FRSS

PWP-O-A1	Richland Creek	Richland cr 0.03mi ups orangeville stp discharge	Stephenson						42.4650050 -89.6483370		FRSS
PWP-O-C1	Richland Creek	Richland cr 0.1 mi dns orangeville stp discharge	Stephenson						42.4650050 -89.6483370		FRSS
PWP-O-C2	Richland Creek	Richland cr 0.4 mi dns orangeville stp discharge	Stephenson						42.4650050 -89.6483370		FRSS
PWP-O-C3	Richland Creek	Richland cr 1.3 mi dns orangeville stp discharge	Stephenson						42.4650050 -89.6483370		FRSS
PWP-O-C4	Richland Creek	Richland cr 6.3 mi dns orangeville stp discharge	Stephenson						42.4650050 -89.6483370		FRSS
PWP-O-E	Richland Creek	Orangeville stp discharge to richland creek	Stephenson						42.4650050 -89.6483370		FRSS
PYA-BH-D1	U-Trib Blackhawk C	U-trib blackhawk cr 0.3 mi ups blackhawk cr	Rock island	17N	2W	12	41.4722700	-90.5623000	MILAN		FRSS
PY-BH-C1	Blackhawk Creek	At rock island pws outfall	Rock island	17N	2W	2	41.4872200	-90.5673600	MILAN		FRSS
PY-BH-C2	Blackhawk Creek	0.7 mi dns rock island pws outfall	Rock island	17N	2W	11	41.4780600	-90.5720800	MILAN		FRSS
PY-BH-C3	Blackhawk Creek	1.3 mi dns rock island pws outfall	Rock island	17N	2W	14	41.4702400	-90.5680300	MILAN		FRSS
PY-BH-C4	Blackhawk Creek	1.8 mi dns rock island pws outfall	Rock island	17N	2W	13	41.4660100	-90.5653900	MILAN		FRSS
PY-BH-C5	Blackhawk Creek	1.9 mi dns rock island pws outfall	Rock island	17N	2W	13	41.4646200	-90.5652100	MILAN		FRSS

**Appendix R.** Fish collected at Rock River mainstem sites, August, 2003.

Common name	Scientific name	Date: 8/8/2003 8/5/2003 8/8/2003 8/11/2003 8/5/2003 8/11/2003 8/4/2003							
		Station:	P-11	P-15	P-20	P-21	P-23	P-24	P-47
		Total	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.
Shortnose gar	Lepisosteus platostomus	9				8		1	
Longnose gar	Lepisosteus osseus	2				2			
Gizzard shad	Dorosoma cepedianum	49	1	15	1	32			
Northern pike	Esox lucius	1					1		
Goldfish	Carassius auratus	1		1					
Carp	Cyprinus carpio	104	14	18	7	20	4	24	17
Carp x Goldfish hybrid	Cyprinus carpio x Carassius auratus	1				1			
Golden shiner	Notemigonus crysoleucas	1							1
Suckermouth minnow	Phenacobius mirabilis	1				1			
Gravel chub	Erimystax x-punctatus	6	2	1	2				1
Spotfin shiner	Cyprinella spiloptera	753	18	149	14	36	111	100	325
Fathead minnow	Pimephales promelas	18		3		2		1	12
Bluntnose minnow	Pimephales notatus	21	3		4		7	5	2
Bullhead minnow	Pimephales vigilax	178	27		1	146		4	
Emerald shiner	Notropis atherinoides	7				4		3	
River shiner	Notropis blennius	2			2				
Bigmouth shiner	Notropis dorsalis	3				3			
Sand shiner	Notropis ludibundus	49	2	29	6	2	5	1	4
Spottail shiner	Notropis hudsonius	1		1					
Bigmouth buffalo	Ictiobus cyprinellus	6	2		3			1	
Smallmouth buffalo	Ictiobus bubalus	1				1			
Black buffalo	Ictiobus niger	4	1	1					2
Quillback	Carpiodes cyprinus	25	4	3	4	6	1		7
River carpsucker	Carpiodes carpio	128	15	1	35	13	8	55	1
White sucker	Catostomus commersoni	16	1	3					12
Northern hog sucker	Hypentelium nigricans	15	11			1	1		2
Shorthead redhorse	Moxostoma macrolepidotum	319	46	136	34	8	44	44	7
Black redhorse	Moxostoma duquesnei	1				1			
Golden redhorse	Moxostoma erythrurum	60	37	3	2		4	5	9
Silver redhorse	Moxostoma anisurum	47	40	4			1	2	
Channel catfish	Ictalurus punctatus	300	31	27	67	21	23	101	30
Flathead catfish	Pylodictis olivaris	12	2	2	1		1	6	

**Appendix R.** Fish collected at Rock River mainstem sites, August, 2003.

Common name	Scientific name	Date: 8/8/2003 8/5/2003 8/8/2003 8/11/2003 8/5/2003 8/11/2003 8/4/2003							
		Station:	P-11	P-15	P-20	P-21	P-23	P-24	P-47
		Total	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.
Stonecat	Noturus flavus	4		1		2			1
White bass	Morone chrysops	6	1	2		3			
Black crappie	Pomoxis nigromaculatus	1		1					
Rock bass	Ambloplites rupestris	3	1	1					1
Largemouth bass	Micropterus salmoides	10			1	8		1	
Smallmouth bass	Micropterus dolomieu	284	72	25	59	35	27	18	48
Green sunfish	Lepomis cyanellus	18	6	2	1	6			3
Bluegill	Lepomis macrochirus	37	3	2	4	21	2	4	1
Pumpkinseed	Lepomis gibbosus	1							1
Orangespotted sunfish	Lepomis humilis	31	14	2	3	9	1	1	1
Walleye	Stizostedion vitreum	27	7	4	1	9	3	1	2
Sauger	Stizostedion canadense	6	2			4			
Slenderhead darter	Percina phoxocephala	5	3			2			
Logperch	Percina caprodes	9		2					7
Johnny darter	Etheostoma nigrum	3	1					1	1
Freshwater drum	Aplodinotus grunniens	210	42	41	6	61	15	15	30
Total fish:		2796	409	480	258	468	259	394	528
Total species:		47	29	28	22	29	18	22	26
Index of Biotic Integrity:		53	57	57	47	40	53	50	47

## Appendix S. Fish collected in the Green River Watershed, 1999.

COMMON NAME	SCIENTIFIC NAME	Total	PB-02	PB-04	PB-05	PB-08	PB-10	PB-19	PBD-02	PBG-10	PBI-02	PBJA-03	PBJA-05	PBM-11	PBO-10	PBP-01	PBS-01	PBU-10
Gizzard shad	Dorosoma cepedianum	121	0	7	0	6	3	1	0	0	0	104	0	0	0	0	0	0
Grass pickerel	Esox americanus	58	1	0	0	3	0	0	0	2	0	0	0	46	3	0	3	0
Northern pike	Esox lucius	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Carp	Cyprinus carpio	235	20	14	23	15	47	10	0	1	1	28	0	69	0	0	7	0
Carp x Goldfish hybrid	Cyprinus carpio x Carassius auratus	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Golden shiner	Notemigonus crysoleucas	7	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	1
Creek chub	Semotilus atromaculatus	226	0	0	42	0	0	0	88	1	1	0	18	0	0	2	0	74
Hornyhead chub	Nocomis biguttatus	40	0	0	1	0	0	0	0	1	0	0	10	0	0	0	0	28
Central stoneroller	Campostoma anomalum	128	0	0	8	0	0	1	9	4	0	0	44	0	2	24	0	36
Suckermouth minnow	Phenacobius mirabilis	3	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0
Blacknose dace	Rhinichthys atratulus	80	0	0	3	0	0	0	28	3	0	0	4	0	1	1	0	40
Common shiner	Luxilus cornutus	257	2	0	23	8	0	2	36	37	1	2	15	0	2	5	9	115
Redfin shiner	Lythrurus umbratilis	35	0	0	0	0	0	0	0	0	4	0	0	27	0	4	0	0
Spotfin shiner	Cyprinella spiloptera	837	147	29	5	36	10	94	0	220	1	2	0	3	164	88	33	5
Fathead minnow	Pimephales promelas	116	0	0	0	0	0	0	8	91	0	0	0	0	0	17	0	0
Bluntnose minnow	Pimephales notatus	1206	1	0	53	2	0	16	15	507	6	1	102	17	130	113	1	242
Rosyface shiner	Notropis rubellus	97	0	0	23	0	3	23	0	0	0	0	10	0	0	0	8	30
Bigmouth shiner	Notropis dorsalis	174	0	0	10	0	0	17	4	3	0	0	2	0	0	105	0	33
Weed shiner	Notropis texanus	18	0	0	0	0	0	0	0	0	0	0	0	2	16	0	0	0
Sand shiner	Notropis ludibundus	259	0	0	0	3	0	23	0	49	0	0	5	0	46	131	0	2
Bigmouth buffalo	Ictiobus cyprinellus	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Smallmouth buffalo	Ictiobus bubalus	3	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Black buffalo	Ictiobus niger	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quillback	Carpiodes cyprinus	55	7	12	0	1	5	22	0	0	0	4	0	4	0	0	0	0
River carpsucker	Carpiodes carpio	108	8	11	0	8	23	7	0	0	3	47	1	0	0	0	0	0
Highfin carpsucker	Carpiodes velifer	88	18	0	0	0	18	20	0	0	0	25	0	0	0	0	7	0
White sucker	Catostomus commersoni	283	0	3	73	0	3	12	18	29	20	0	61	6	0	0	19	39
Northern hog sucker	Hypentelium nigricans	9	0	0	0	0	0	8	0	1	0	0	0	0	0	0	0	0
Shorthead redhorse	Moxostoma macrolepidotum	117	8	11	0	12	10	55	0	3	0	15	1	0	0	0	2	0
Golden redhorse	Moxostoma erythrurum	258	10	2	5	25	66	35	0	24	0	44	2	12	0	0	25	8
Silver redhorse	Moxostoma anisurum	3	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0
Channel catfish	Ictalurus punctatus	94	7	18	0	29	0	0	0	0	1	27	0	0	0	2	10	0
Yellow bullhead	Ameiurus natalis	4	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
Black bullhead	Ameiurus melas	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5



## Appendix S. Fish collected in the Green River Watershed, 1999.

COMMON NAME	SCIENTIFIC NAME	Total	PB-02	PB-04	PB-05	PB-08	PB-10	PB-19	PBD-02	PBG-10	PBI-02	PBJA-03	PBJA-05	PBM-11	PBO-10	PBP-01	PBS-01	PBU-10
Flathead catfish	<i>Pylodictis olivaris</i>	8	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0
Stonecat	<i>Noturus flavus</i>	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Tadpole madtom	<i>Noturus gyrinus</i>	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Freckled madtom	<i>Noturus nocturnus</i>	4	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
Blackstripe topminnow	<i>Fundulus notatus</i>	117	6	0	24	0	0	0	0	5	0	0	0	7	15	47	11	2
Mosquitofish	<i>Gambusia affinis</i>	26	2	0	0	0	0	0	8	6	0	0	0	0	2	8	0	0
Brook stickleback	<i>Culaea inconstans</i>	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Black crappie	<i>Pomoxis nigromaculatus</i>	6	4	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Largemouth bass	<i>Micropterus salmoides</i>	58	4	2	3	5	12	0	3	2	1	4	10	0	11	0	0	1
Smallmouth bass	<i>Micropterus dolomieu</i>	125	24	19	0	7	24	17	0	1	5	8	0	12	0	0	8	0
Green sunfish	<i>Lepomis cyanellus</i>	160	30	17	4	2	34	12	1	3	11	1	14	14	10	2	4	1
Bluegill x Green sunfish hybrid	<i>Lepomis macrochirus</i> x <i>L. cyanellus</i>	5	1	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Bluegill	<i>Lepomis macrochirus</i>	216	28	6	18	1	41	13	9	1	5	11	31	0	1	0	23	28
Pumpkinseed	<i>Lepomis gibbosus</i>	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Orangespotted sunfish	<i>Lepomis humilis</i>	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Walleye	<i>Stizostedion vitreum</i>	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Slenderhead darter	<i>Percina phoxocephala</i>	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Johnny darter	<i>Etheostoma nigrum</i>	120	0	1	8	0	0	0	2	22	4	0	3	5	19	4	4	48
Banded darter	<i>Etheostoma zonale</i>	31	1	0	4	0	0	13	0	5	0	0	0	0	3	0	0	5
Fantail darter	<i>Etheostoma flabellare</i>	36	0	0	1	0	0	0	0	0	0	0	35	0	0	0	0	0
Least darter	<i>Etheostoma microperca</i>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Freshwater drum	<i>Aplodinotus grunniens</i>	8	2	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Total fish:		5862	337	163	337	174	302	402	231	1026	65	327	373	224	427	553	177	744
Total species:		54	23	18	21	19	16	21	15	29	15	18	20	13	17	15	19	21
Index of Biotic Integrity:			46	34	42	44	42	46	40	48	36	42	44	38	52	36	54	50

## Appendix T. Fish collected in the Kishwaukee River watershed, 2001.

COMMON NAME	SCIENTIFIC NAME	Total	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQC-11	PQC-13	PQCL-02	PQD-05	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01
American brook lamprey	Lampetra appendix	13	7	0	0	2	0	0	0	0	0	0	0	0	4	0	0
Gizzard shad	Dorosoma cepedianum	35	0	13	0	0	19	0	3	0	0	0	0	0	0	0	0
Central mudminnow	Umbra limi	41	0	0	0	0	0	0	0	0	0	0	0	0	0	40	1
Grass pickerel	Esox americanus	10	5	0	0	4	0	0	0	1	0	0	0	0	0	0	0
Northern pike	Esox lucius	10	2	2	0	2	0	1	0	1	2	0	0	0	0	0	0
Carp	Cyprinus carpio	166	5	2	2	34	3	30	5	59	0	12	3	0	1	10	0
Carp x Goldfish hybrid	Cyprinus carpio x Carassius auratus	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Golden shiner	Notemigonus crysoleucas	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Southern redbelly dace	Phoxinus erythrogaster	39	0	0	0	0	0	0	0	0	1	0	1	31	6	0	0
Creek chub	Semotilus atromaculatus	491	0	0	0	1	0	2	1	0	1	37	32	90	246	0	81
Hornyhead chub	Nocomis biguttatus	189	1	0	0	0	0	0	3	0	3	2	14	1	106	34	25
Central stoneroller	Campostoma anomalum	1266	0	0	0	5	4	0	20	18	3	0	58	362	710	11	75
Largescale stoneroller	Campostoma oligolepis	17	0	1	0	3	0	0	4	0	0	0	9	0	0	0	0
Suckermouth minnow	Phenacobius mirabilis	8	0	0	0	1	0	0	0	0	0	1	2	0	0	0	4
Blacknose dace	Rhinichthys atratulus	202	0	0	0	0	0	0	0	0	0	11	0	142	45	0	4
Gravel chub	Erimystax x-punctatus	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Common shiner	Luxilus cornutus	348	6	0	0	0	2	2	4	12	1	83	0	50	137	33	18
Redfin shiner	Lythrurus umbratilis	10	0	7	0	0	0	2	0	0	0	1	0	0	0	0	0
Spotfin shiner	Cyprinella spiloptera	845	7	511	0	27	9	40	128	2	50	31	33	4	0	0	3
Fathead minnow	Pimephales promelas	7	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0
Bluntnose minnow	Pimephales notatus	975	2	25	1	4	19	13	68	239	139	144	166	104	11	1	39
Rosyface shiner	Notropis rubellus	53	0	1	0	0	0	2	2	0	10	2	36	0	0	0	0
Bigmouth shiner	Notropis dorsalis	450	0	4	0	10	1	10	6	2	4	37	52	124	157	0	43
Sand shiner	Notropis ludibundus	1523	16	247	0	76	6	49	106	3	144	164	395	299	0	2	16
Unidentified buffalo	Ictiobus sp.	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Bigmouth buffalo	Ictiobus cyprinellus	4	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0
Black buffalo	Ictiobus niger	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Quillback	Carpiodes cyprinus	72	10	15	0	1	2	12	28	0	2	2	0	0	0	0	0
River carpsucker	Carpiodes carpio	21	0	15	0	0	1	0	5	0	0	0	0	0	0	0	0
Highfin carpsucker	Carpiodes velifer	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
White sucker	Catostomus commersoni	1019	8	2	46	3	0	11	9	350	9	245	65	91	78	40	62
Northern hog sucker	Hypentelium nigricans	97	0	6	0	10	5	1	15	0	1	0	18	5	26	0	10
Shorthead redhorse	Moxostoma macrolepidotum	120	9	6	0	19	6	1	21	0	24	1	15	10	0	6	2
Black redhorse	Moxostoma duquesnei	11	0	2	0	4	1	0	3	0	0	0	1	0	0	0	0
Golden redhorse	Moxostoma erythrurum	306	18	31	0	95	28	72	20	4	22	2	12	2	0	0	0

## Appendix T. Fish collected in the Kishwaukee River watershed, 2001.

COMMON NAME	SCIENTIFIC NAME	Total	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQC-11	PQC-13	PQCL-02	PQD-05	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01
Silver redhorse	Moxostoma anisurum	65	14	4	0	12	11	3	12	0	1	6	2	0	0	0	0
Channel catfish	Ictalurus punctatus	21	0	9	0	0	3	2	2	0	0	0	5	0	0	0	0
Yellow bullhead	Ameiurus natalis	19	0	0	0	0	0	2	0	15	1	0	0	1	0	0	0
Black bullhead	Ameiurus melas	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Flathead catfish	Pylodictis olivaris	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Stonecat	Noturus flavus	61	0	0	0	0	0	2	0	0	1	7	9	0	18	0	24
Slender madtom	Noturus exilis	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Blackstripe topminnow	Fundulus notatus	31	2	0	17	5	0	0	0	0	0	0	0	0	0	7	0
Brook silverside	Labidesthes sicculus	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Black crappie	Pomoxis nigromaculatus	5	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0
Rock bass	Ambloplites rupestris	34	0	6	0	11	1	2	2	0	1	0	0	0	0	11	0
Largemouth bass	Micropterus salmoides	64	0	2	2	19	1	1	1	3	0	4	3	4	4	14	6
Smallmouth bass	Micropterus dolomieu	78	0	9	0	19	12	10	18	5	3	0	2	0	0	0	0
Green sunfish	Lepomis cyanellus	75	1	2	4	4	8	9	3	20	6	12	1	0	2	2	1
Bluegill x Green sunfish hybrid	Lepomis macrochirus x L. cyanellus	7	0	0	0	0	2	3	0	0	2	0	0	0	0	0	0
Bluegill	Lepomis macrochirus	60	3	6	1	14	4	1	4	0	13	3	1	8	2	0	0
Pumpkinseed	Lepomis gibbosus	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Orangespotted sunfish	Lepomis humilis	5	0	0	0	2	0	0	2	1	0	0	0	0	0	0	0
Blackside darter	Percina maculata	42	0	2	1	1	0	0	0	12	5	12	4	0	3	1	1
Slenderhead darter	Percina phoxocephala	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Johnny darter	Etheostoma nigrum	175	9	3	3	1	0	0	0	14	29	7	17	17	12	7	56
Banded darter	Etheostoma zonale	140	0	1	0	21	1	5	0	0	1	11	56	28	6	2	8
Rainbow darter	Etheostoma caeruleum	76	0	0	0	8	0	0	0	0	0	0	2	23	39	0	4
Fantail darter	Etheostoma flabellare	103	0	0	0	0	0	0	0	0	0	4	20	17	48	0	14
Freshwater drum	Aplodinotus grunniens	15	0	1	0	0	9	3	2	0	0	0	0	0	0	0	0
Total fish:		9444	126	943	77	425	158	293	501	761	479	843	1035	1420	1665	221	497
Total species:		58	19	32	9	34	23	27	31	18	26	26	30	24	22	16	22
Index of Biotic Integrity:			47	45	23	59	54	55	50	28	52	42	52	52	55	42	53

**Appendix U.** Fish collected in the Pecatonica River watershed, August, 2002.

Common name	Scientific name	Date:	8/6/2002	8/6/2002	8/2/2002	8/5/2002	8/5/2002
		Station:	PW-02	PW-04	PW-07	PWA-02	PWB-03
		Total	Pecatonica R.	Pecatonica R.	Pecatonica R.	Raccoon Cr.	Sugar R.
Gizzard shad	Dorosoma cepedianum	94	49	14	18		10
Grass pickerel	Esox americanus	5				1	4
Northern pike	Esox lucius	2	1		1		
Goldfish	Carassius auratus	5					
Carp	Cyprinus carpio	82	10	17	29		13
Carp x Goldfish hybrid	Cyprinus carpio x Carassius auratus	1					
Southern redbelly dace	Phoxinus erythrogaster	367					
Creek chub	Semotilus atromaculatus	120					
Hornyhead chub	Nocomis biguttatus	489					
Central stoneroller	Campostoma anomalum	459					1
Largescale stoneroller	Campostoma oligolepis	2					
Suckermouth minnow	Phenacobius mirabilis	7					
Blacknose dace	Rhinichthys atratulus	36					
Gravel chub	Erimystax x-punctatus	6			6		
Common shiner	Luxilus cornutus	1140			4		
Spotfin shiner	Cyprinella spiloptera	395	14	30	48	7	267
Fathead minnow	Pimephales promelas	96			3		16
Bluntnose minnow	Pimephales notatus	419			18	1	58
Emerald shiner	Notropis atherinoides	1			1		
Rosyface shiner	Notropis rubellus	21					
Ozark minnow	Notropis nubilus	21					1
Bigmouth shiner	Notropis dorsalis	37			2		2
Sand shiner	Notropis ludibundus	172		6	89	23	14
Bigmouth buffalo	Ictiobus cyprinellus	13		2	3		8
Black buffalo	Ictiobus niger	2			2		
Quillback	Carpiodes cyprinus	3					3
Highfin carpsucker	Carpiodes velifer	1	1				
White sucker	Catostomus commersoni	292				1	
Northern hog sucker	Hypentelium nigricans	7					
Shorthead redhorse	Moxostoma macrolepidotum	59	3				5
Black redhorse	Moxostoma duquesnei	29					3

**Appendix U.** Fish collected in the Pecatonica River watershed, August, 2002.

Common name	Scientific name	Date:	8/6/2002	8/6/2002	8/2/2002	8/5/2002	8/5/2002
		Station:	PW-02	PW-04	PW-07	PWA-02	PWB-03
		Total	Pecatonica R.	Pecatonica R.	Pecatonica R.	Raccoon Cr.	Sugar R.
Golden redhorse	Moxostoma erythrum	30				2	
Silver redhorse	Moxostoma anisurum	10	1	1	2		5
Channel catfish	Ictalurus punctatus	36	7	1	5		3
Black bullhead	Ameiurus melas	10					
Flathead catfish	Pylodictis olivaris	4		1	2		1
Stonecat	Noturus flavus	9					
Freckled madtom	Noturus nocturnus	3					
Slender madtom	Noturus exilis	2					1
Blackstripe topminnow	Fundulus notatus	1					1
Black crappie	Pomoxis nigromaculatus	12	4	2	2		1
Largemouth bass	Micropterus salmoides	4					3
Smallmouth bass	Micropterus dolomieu	34	1	7	3		1
Green sunfish	Lepomis cyanellus	65	4	12	3	6	9
Pumpkinseed x Green sunfish hybrid	Lepomis gibbosus x L. cyanellus	1					
Bluegill	Lepomis macrochirus	20		2	1	3	
Pumpkinseed	Lepomis gibbosus	1					1
Orangespotted sunfish	Lepomis humilis	22	3	6			1
Walleye	Stizostedion vitreum	4	1	1	1		
Blackside darter	Percina maculata	7				2	
Slenderhead darter	Percina phoxocephala	3			2		
Johnny darter	Etheostoma nigrum	72				1	3
Banded darter	Etheostoma zonale	1				1	
Fantail darter	Etheostoma flabellare	331					
Slough darter	Etheostoma gracile	3			3		
Freshwater drum	Aplodinotus grunniens	4					3
Total fish:		5072	99	102	248	48	438
Total species:		54	13	14	23	11	27
Index of Biotic Integrity:			31	29	36	31	37

**Appendix U.** Fish collected in the Pecatonica River watershed, August, 2002.

		Date:	8/1/2002	7/31/2002	7/29/2002	7/31/2002	7/30/2002	7/30/2002
		Station:	PWH-01	PWI-01	PWN-03	PWNA-04	PWP-06	PWPA-01
Common name	Scientific name	Total	Sumner Cr.	Rock Run Cr.	Yellow Cr.	Crane Grove Cr.	Richland Cr.	Cedar Cr.
Gizzard shad	Dorosoma cepedianum	94			3			
Grass pickerel	Esox americanus	5						
Northern pike	Esox lucius	2						
Goldfish	Carassius auratus	5			5			
Carp	Cyprinus carpio	82			12		1	
Carp x Goldfish hybrid	Cyprinus carpio x Carassius auratus	1			1			
Southern redbelly dace	Phoxinus erythrogaster	367		125		240	2	
Creek chub	Semotilus atromaculatus	120		18	3	75	12	12
Hornyhead chub	Nocomis biguttatus	489	3	60	45	311	30	40
Central stoneroller	Campostoma anomalum	459		165	3	239	35	16
Largescale stoneroller	Campostoma oligolepis	2				2		
Suckermouth minnow	Phenacobius mirabilis	7		6			1	
Blacknose dace	Rhinichthys atratulus	36	1	4		31		
Gravel chub	Erimystax x-punctatus	6						
Common shiner	Luxilus cornutus	1140	16	594	67	311	100	48
Spotfin shiner	Cyprinella spiloptera	395			28	1		
Fathead minnow	Pimephales promelas	96	6	2		2	19	48
Bluntnose minnow	Pimephales notatus	419	15	115	7	131	34	40
Emerald shiner	Notropis atherinoides	1						
Rosyface shiner	Notropis rubellus	21		2	16	3		
Ozark minnow	Notropis nubilus	21				20		
Bigmouth shiner	Notropis dorsalis	37	5	21	4		3	
Sand shiner	Notropis ludibundus	172	3	27	8	1	1	
Bigmouth buffalo	Ictiobus cyprinellus	13						
Black buffalo	Ictiobus niger	2						
Quillback	Carpiodes cyprinus	3						
Highfin carpsucker	Carpiodes velifer	1						
White sucker	Catostomus commersoni	292	36	109	25	46	46	29
Northern hog sucker	Hypentelium nigricans	7			3		4	
Shorthead redhorse	Moxostoma macrolepidotum	59	5		37		8	1

**Appendix U.** Fish collected in the Pecatonica River watershed, August, 2002.

Common name	Scientific name	Date:						
		Station:						
		8/1/2002	7/31/2002	7/29/2002	7/31/2002	7/30/2002	7/30/2002	
		PWH-01	PWI-01	PWN-03	PWNA-04	PWP-06	PWPA-01	
		Total	Sumner Cr.	Rock Run Cr.	Yellow Cr.	Crane Grove Cr.	Richland Cr.	Cedar Cr.
Black redhorse	Moxostoma duquesnei	29			26			
Golden redhorse	Moxostoma erythrurum	30	1		27			
Silver redhorse	Moxostoma anisurum	10			1			
Channel catfish	Ictalurus punctatus	36	1		19			
Black bullhead	Ameiurus melas	10			10			
Flathead catfish	Pylodictis olivaris	4						
Stonecat	Noturus flavus	9		2	2	2	1	2
Freckled madtom	Noturus nocturnus	3				3		
Slender madtom	Noturus exilis	2				1		
Blackstripe topminnow	Fundulus notatus	1						
Black crappie	Pomoxis nigromaculatus	12			3			
Largemouth bass	Micropterus salmoides	4				1		
Smallmouth bass	Micropterus dolomieu	34		1	20		1	
Green sunfish	Lepomis cyanellus	65	1		26	1	1	2
Pumpkinseed x Green sunfish hybrid	Lepomis gibbosus x L. cyanellus	1			1			
Bluegill	Lepomis macrochirus	20			11	3		
Pumpkinseed	Lepomis gibbosus	1						
Orangespotted sunfish	Lepomis humilis	22	1		11			
Walleye	Stizostedion vitreum	4			1			
Blackside darter	Percina maculata	7	1			1		3
Slenderhead darter	Percina phoxocephala	3			1			
Johnny darter	Etheostoma nigrum	72	18	10		34	3	3
Banded darter	Etheostoma zonale	1						
Fantail darter	Etheostoma flabellare	331		148		46	44	93
Slough darter	Etheostoma gracile	3						
Freshwater drum	Aplodinotus grunniens	4			1			
Total fish:		5072	113	1409	427	1505	346	337
Total species:		54	15	17	29	23	19	13
Index of Biotic Integrity:			40	42	57	51	50	36

# Appendix V. Fish collected at Rock River direct tributaries, August, 2003.

		Date:	8/13/03	8/13/03	8/7/03	8/12/03	8/15/03	8/12/03	8/14/03	8/14/03	8/7/03	8/6/03	8/6/03
		Station:	PH-16	PHE-01	PJ-01	PK-01	PL-03	PL-18	PN-02	PN-03	PP-01	PSB-01	PT-01
Common name	Scientific name	Total	Elkhorn Cr.	Buffalo Cr.	Pine Cr.	Franklin Cr.	Kyte R.	Kyte R.	Leaf R.	Leaf R.	Stillman Cr.	No Fk Kent Cr.	Kinnikinnick Cr.
Shortnose gar	Lepisosteus platostomus	1					1						
Brown trout	Salmo trutta	233										226	7
Goldfish	Carassius auratus	1					1						
Carp	Cyprinus carpio	14	4	1			2	4	1	2			
Golden shiner	Notemigonus crysoleucas	4				4							
Southern redbelly dace	Phoxinus erythrogaster	601		590		9						1	1
Creek chub	Semotilus atromaculatus	306	1	128	1	18		2	2	2	79	39	34
Hornyhead chub	Nocomis biguttatus	832			69	559		27	5	90	76	3	3
Unidentified Stoneroller	Campostoma sp.	20			20								
Central stoneroller	Campostoma anomalum	2374	12	1305	100	562		7		50	338		
Suckermouth minnow	Phenacobius mirabilis	126	44	49		6	1			7	19		
Blacknose dace	Rhinichthys atratulus	814	1	170		621					2	5	15
Common shiner	Luxilus cornutus	1303	1	182	71	667		25	37	129	152	38	1
Redfin shiner	Lythrurus umbratilus	18								18			
Spotfin shiner	Cyprinella spiloptera	101			5	2	14	60		20			
Fathead minnow	Pimephales promelas	2				2							
Bluntnose minnow	Pimephales notatus	986	119	431	3	113	3	42		169	106		
Emerald shiner	Notropis atherinoides	2								2			
Rosyface shiner	Notropis rubellus	110			8	56	1	32		13			
Ozark minnow	Notropis nubilus	13				11					2		
Bigmouth shiner	Notropis dorsalis	280	1	137		130				1	11		
Sand shiner	Notropis ludibundus	219	79	2		21	19	59		17	22		
Spottail shiner	Notropis hudsonius	3	3										
Quillback	Carpiodes cyprinus	14	4				10						
River carpsucker	Carpiodes carpio	10	10										
Highfin carpsucker	Carpiodes velifer	13	5				8						
White sucker	Catostomus commersoni	657	26	149	52	112	3	5	65	64	37	29	115
Northern hog sucker	Hypentelium nigricans	34	8		6		1	6	1	2	9	1	
Shorthead redhorse	Moxostoma macrolepidotum	66	23		10		21	1	8	3			
Black redhorse	Moxostoma duquesnei	2	1		1								
Golden redhorse	Moxostoma erythrurum	206	27		11		70	21	20	48	9		



# Appendix V. Fish collected at Rock River direct tributaries, August, 2003.

Common name	Scientific name	Date: 8/13/03 8/13/03 8/7/03 8/12/03 8/15/03 8/12/03 8/14/03 8/14/03 8/7/03 8/6/03 8/6/03											
		Station: PH-16	PHE-01	PJ-01	PK-01	PL-03	PL-18	PN-02	PN-03	PP-01	PSB-01	PT-01	
		Total	Elkhorn Cr.	Buffalo Cr.	Pine Cr.	Franklin Cr.	Kyte R.	Kyte R.	Leaf R.	Leaf R.	Stillman Cr.	No Fk Kent Cr.	Kinnikinnick Cr.
Channel catfish	Ictalurus punctatus	60	3		12		17	1	26	1			
Yellow bullhead	Ameiurus natalis	7		4				1		2			
Black bullhead	Ameiurus melas	3				2		1					
Stonecat	Noturus flavus	19	2		1	7		6		3			
Banded sculpin	Cottus carolinae	12											12
Rock bass	Ambloplites rupestris	16			10	4		2					
Largemouth bass	Micropterus salmoides	9			4	1							4
Smallmouth bass	Micropterus dolomieu	221	26		38	14	48	33	23	31	8		
Green sunfish	Lepomis cyanellus	108	2	1		41	5		5	43	2	1	8
Bluegill	Lepomis macrochirus	124			28	62	13	6	1	1		4	9
Redear sunfish	Lepomis microlophus	1									1		
Walleye	Stizostedion vitreum	10					10						
Blackside darter	Percina maculata	1									1		
Slenderhead darter	Percina phoxocephala	12	9								3		
Logperch	Percina caprodes	2							2				
Johnny darter	Etheostoma nigrum	29	1	7		12				4	4	1	
Bluntnose darter	Etheostoma chlorosomum	178		178									
Banded darter	Etheostoma zonale	30	25					5					
Fantail darter	Etheostoma flabellare	49	2	10	6	7				13	11		
Freshwater drum	Aplodinotus grunniens	1					1						
Total fish:		10257	439	3344	456	3043	249	346	196	735	892	348	209
Total species:		50	26	16	19	25	20	21	13	25	20	11	11
Index of Biotic Integrity:			53	40	51	49	51	45	41	55	53	34	30

**Appendix W. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.**

Organism	Tolerance	Stream Name:														
		Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Franklin Cr.	Sugar Cr.	N. Fk. Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
		Station: P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6	2	11	2	17		28	5		1	7		1	1		12
unid. genus	10	14			28					43	3	1	7		62	
Aeolosoma sp.	10				2		16			1						
unid. genus	10					1		3		1						
unid. genus	10								1							
Chaetogaster diastrophus	10		1													
Dero sp.	10															
Nais behningi	10	1		1	4		5		10		7		5			
Nais bretscheri	10								39						2	1
Nais communis	10															
Nais pardalis	10								1							
Nais variabilis	10							1								
Nais sp. (inc. spec.)	10											1				
Ophidonais serpentina	10							13			1					
Paranais frici	10								3							
Piguetiella michiganensis	10						1									
Pristina aequiseta	10						1									
Pristina leidy	10														1	
Pristina synclites	10						1									
Pristiniella osborni	10															
Pristinella sima	10				1		1									
Slavina appendiculata	10														1	
Stylaria lacustris	10							6								
Aulodrilus limnobius	10													1		
Aulodrilus pigueti	10								1							
Branchiura sowerbyi	10		3		1		1									
Limnodrilus hoffmeisteri	10								1		1					
Limnodrilus udekemianus	10								2		1					
Immature without hair chaetae	10	2		1	1		3	2		1				3		3
Immature with hair chaetae	10						1									

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	Stream Name:														
		R. R.	R. R.	R. R.	R. R.	R. R.	R. R.	Franklin Cr.	Sugar Cr.	N. Fk. Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
		Station: P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Erpobdella punctata	8							5								1
Mooreobdella fervida	8													1		
Mooreobdella microstoma	8				11		7									
unid. erpobdellid (young specimens)	8			1												2
Placobdella multilineata	8				1											
Placobdella papillifera	8														1	
Caecidotea intermedius	6	1	22	5	3	1		18		6						
Caecidotea (imm, females)	6	3	36	1	7			27		5	3				2	
Gammarus pseudolimnaeus	3				1	1		99		140	1	33		49		15
Hyaella azteca	5															
unid. amphipods (very small specimens)	4							2								
Orconectes propinquus	5				1				1		1	1	1		1	
Orconectes rusticus	5	1								1						
Orconectes virilis	5								1		1					1
Orconectes sp. (imm.)	5								1	1				1		
*	5			4					6	8		2	2	4		4
Baetis brunneicolor	4							3	1	9		11				2
Baetis flavistriga	4							21			6		29	14	8	9
Baetis intercalaris	7	1	2		4	1	9			2	24	4	14	2		1
Baetis sp. ?	4															
Baetis (inc., EI)	4							2			1	1	3	1	1	
Callibaetis sp.	4							3								1
Labiobaetis ephippiatus	4										1					
Labiobaetis longipalpus	6	79		2	3	26										
Labiobaetis propinquus	4					1					2			1		
Plauditus punctiventris	4															
unid. baetid (inc., EI)	4			1			1		1		1					
Baetisca sp.	3			1			1									

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	Stream Name:														
		Station:														
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Caenis hilaris	6	7		5	12	14	1									
Caenis punctata	6		1				1								4	
Caenis sp. (EI)	6	2			3						1					
Hexagenia limbata	5										1					
Hexagenia sp. (EI)	6															
Pentagenia vittigera	4															
Heptagenia diabasia	4	37		3		2			3		13	56	1			
Heptagenia flavascens	2	18		5	2	4										
Heptagenia sp.	3											5				
Leuctocuta hebe	3															
Stenacron interpunctatum	4	6	38	12	13	4	5	9		9		5	10	21	2	12
Stenonema exiguum	5					1				1		6				
Stenonema integrum	4	17			7	14					1					
Stenonema pulchellum	3	12	4	1	8	2	24									
Stenonema terminatum	4	32	29	14	25	20	17					5		1		
Stenonema vicarium	3									1						
Stenonema spp.	4	10	2	2	2	5	14	1			9		1			
unid. heptageniid (inc., EI)	3.5	4						2		2			1			
Isonychia sp.	3	108		2	19	19					69	6	24			
Homoeoneuria ammophila	3															
Anthopotamus sp.	4	2	7		2	3	137					1				
unid. potamanthid (EI)	4															
Ephoron album	2					2										
Tricorythodes sp.	5	12	25	58	35	22	9				30	19	8			1
Aeschna sp.	4								2							
Boyeria vinosa	3							3		5	1	3	8	1		1
Calopteryx aequalis	4															
Calopteryx maculata	4															
Hetaerina americana	3		1	1							11		4	2		1
Hetaerina titia	3	1				3										

**Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.**

Organism	Tolerance	Stream Name:														
		Station:														
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
		P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
unid. calopterygid (EI)	3.5												2			
Argia apicalis	5						1								1	
Argia moestus	5	1					3									
Argia tibialis	5						8									
Argia sp. (inc., EI)	5			1	3		8				1					
Enallagma spp. (inc., EI)	6															2
Ischnura verticalis	6							4								
Ischnura verticalis?	6							4								
Ischnura sp. (inc., EI)	6													1		1
unid. coenagrionid (EI)	5.5										1					
Gomphurus externus	7															
Gomphurus sp. (EI)	7										2					
Gomphus graslinellus	7														1	
Stylurus laurae	4.5															
Stylurus notatus	4.5			1												
Stylurus spiniceps	4.5															
Acroneuria abnormis	1															
Pteronarcys dorsata	2	2														
Chauliodes rasticornis	4	2														
Corydalus cornutus	3										1					
Sialis sp.	4	1				1										
Brachycentrus	1															
numerosus																
Helicopsyche borealis	2													20		
Cheumatopsyche sp.	6	4	5	4	47	2	1	41	6	14	15	7	39	43	13	28
Hydropsyche betteni complex	5							27	24	5	5	5	74	20	39	4
Hydropsyche bidens	5	1	1	1	9											
Hydropsyche bronta	5							2	77	4	91	12	7	56	105	179
Hydropsyche morosa	4										17		1	3		
Hydropsyche orris	4	104	76	38	98	7	1									

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	N. Fk.															
		Stream Name:	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Franklin Cr.	Sugar Cr.	Kent Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
		Station:	P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Hydropsyche phalerata	2	1		1			4										
Hydropsyche simulans	5	2	1			2	4										
Hydropsyche slossonae	5							4			3			5			
Hydropsyche spp. (EI)	5	1			3			7	10	4	14	4	4	7	10		
Macrostemum zebratum	2	3	8			1											
Potamyia flava	4	187	2	65	30	30	72										
hydropsychid (EI)	5.5	8	2					3	3		9	2			13		
Hydroptila sp.	2				4		1				3				1		
Ceraclea sp.	3				1												
Nectopsyche candida	3			3			2										
Nectopsyche diarina	3											1		3			
unid. leptocerid (pupa)	3.5																
Pycnopsyche sp.	3									4			1	1			
unid. limnephilid (pupa)	3.5										1						
Neureclipsis sp.	3	2	7			9	1										
Nyctiopsyche	1																
moesta=Nyctiophylax?																	
Helichus lithophilus	4						1	1	1		1	1					
Ancyronyx variegatus	2			1				1			4		1				
Dubiraphia minima	5							4			2	1	1	1	1		
Dubiraphia robusta	5							1			2						
Dubiraphia spp.	5		1		1												
Macronychus glabratus	2	13		3		1	7	4		4	16	10	13	2			
Optioservus fastiditus	4							5	3		2			2			
Optioservus sp. (L)	4							3	13		9			5		1	
Stenelmis crenata	7							4	3	2	1	1	14	10	11	4	
Stenelmis crenata-gr.	7																
Stenelmis humerosa-sinuata-gr.	7	1		28	1		42						1				
Stenelmis spp. (L)	7	2	1		8		6	5		5	24	1	5	3	1	11	
unid. elmids (EI)	5								1	6							

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	Stream Name:														
		R.	R.	R.	R.	R.	R.	Cr.	Cr.	N. Fk. Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
		Station: P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Atherix sp.	4											1				
Ablabesmyia annulata	6															
Ablabesmyia sp.	6						1									
Brillia sp.	6											1				
Cardiocladius sp.	6										1					
Chironomus sp.	11					1	1								1	1
Cladotanytarsus vanderwulpi-gr.	7							1						1		
Clinotanypus sp.	6															
Conchapelopia sp.	6							4	4		5					
Conchapelopia genus group (EI)	6								1				1			
Corynoneura sp.	2															
Cricotopus (C.) bicinctus	10							12	4		4	1			2	
Cricotopus (C.) tremulus-gr.	8							1	10		1				1	
Cricotopus (C.) trifascia-gr.	6							5	25		3	1			4	
Cricotopus (C.) sp.	8				1			1	6		2			1	2	1
Cricotopus (I.) sylvestris-gr.	8							3								
Cricotopus/Orthocladius	6								3					1		
Cryptochironomus sp.	8		6	1		1		1		3	2	1		9		3
Cryptotendipes sp.	6															
Diamesa sp.	4											1				
Dicrotendipes simpsoni	6		1													
Dicrotendipes sp.	6	1											1			
Doncricotopus sp.	6							1								
Eukiefferiella devonica-gr.	4							1	3		1				1	
Eukiefferiella sp. (EI)	4								1							
Glyptotendipes sp.	10		80	4	3		28									
Hayesomyia senata	6						2									

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	Stream Name:														
		Station:														
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
? Hayesomyia senata (EI)	6							10								
Helopelopia sp.	6												1			
Labrundinia pilosella	4							1								
Meropelopia sp.	6	4	5	2	1									1		
Meropelopia genus group (EI)	6							1								
Microtendipes pedellus-gr.	6			2				2	1		2			1		2
Nanocladius crassicornus	3							1								
Nanocladius distinctus	3		3													
Nanocladius sp. (EI)	3							4								
Natarsia sp. A	6								1							
Orthocladius (O.) sp.	4								2							
Parachironomus carinata	8															
Parachironomus frequens	8	1			1	2										
Paracladopelma nereis	4															
Parakiefferiella sp.	6															
Paramerina sp.	6															
Parametriocnemus sp.	4															
Paratanytarsus sp.	6													2		
Paratendipes albimanus-gr.	3													2		
Phaenopsectra obediens-gr.	4							4			2					
Polypedilum aviceps	6															
Polypedilum convictum-gr.	6	1	5	1	6	1	32	47			8		12		22	15
Polypedilum fallax	6									2						
Polypedilum halterale-gr.	4															
Polypedilum illinoense	5	9	8	3	1	1		17	1	1	23	3	6	2	5	3
Polypedilum laetum	6							4					7	4		



Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Tolerance	N. Fk.														
		Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Franklin Cr.	Sugar Cr.	Kent Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
		Station: P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Polypedilum scalaenum-gr.	6		1				1									
Polypedilum sp. ?	6				4											
Polypedilum sp.	6													1		
Procladius sp.	8						1	1								1
Rheocricotopus robacki	6							3				1	2			
Rheocricotopus sp. (inc., EI)	6															
Rheotanytarsus sp.	6	5	21	1	1		19				1		2		1	
Robackia sp.	6															
Stenochironomus sp.	3	2				1										
Stictochironomus sp.	5							1								
Tanytus neopunctipennis	8															
Tanytarsus glabrascens-gr. sp. 1	7													1		
Tanytarsus sp. 08-gr.	7															
Tanytarsus sp. 13A	7															
Tanytarsus sp. 13C	7															
Thienemanniella xena	2								3	1	1				1	
Thienemanniella sp. 1	2															
Thienemanniella sp.	2							3	2				1	2		
Tribelos fuscicorne	5															
Tvetenia bavarica-gr.	6								3			1		1		
Tvetenia discoloripes-gr.	6													1		
unid. chironomini (EI)	6		2	1			7							1	1	1
unid. orthoclauii (EI)	6															
unid. tanypodinae (inc. spec., EI)	6						1									
unid. tribe (VEI)	6															
Anopheles sp.	8							1							3	
Hemerodromia sp.	6												1		1	

**Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.**

		N. Fk.														
		Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Franklin Cr.	Sugar Cr.	Kent Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
Stream Name:		P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
Station:		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Simulium jenningsi complex	4		19													
Simulium meriodionale?	1															
Simulium tuberosum complex	4									9		3	16	3		
Simulium vittatum complex	8							4	15			1		1		2
Simulium sp. (EI)	6							1			1	1				
unid. simuliid (very EI)	6												3			
Chrysops sp.	7															
Dicranota sp.	4													1		
Pilaria sp.	4															
Tipula sp.	4								5	1		2	3		2	
unid. tipulid (pupa)	4															
Ferrissia rivularis	7													1		
Pseudosuccinea columella	7										1					
Physella sp.	9		3		1			19	15	1	2		1	28	8	21
Amnicola limosa	4													24		
Amnicola sp.	4				1										1	
Pleurocera sp.	7		6			7	8									
Musclium transversum	5	3			16										2	2
Pisidium compressum	5						1	2								
Sphaerium striatinum	5									2				2	2	1
unid. sphaeriid (inc., imm.)	5				8											
Truncilla donaciformis (Fawnsfoot)	1			1												
Lasmigona complanata (White heelsplitter)*	1.5															
Hydra sp.														1		
Prostoma sp.											1					

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

		N. Fk.														
		Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Rock R.	Franklin Cr.	Sugar Cr.	Kent Cr.	Elkhorn Cr.	Leaf R.	Leaf R.	Stillman Cr.	Pine Cr.	Buffalo Cr.
Stream Name:	Station:	P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Plumatella casmiana?																
Oniscus asellus			1		1								2	2		
Sperchon sp.													1			
Belostoma flumineum																
Belostoma sp. (EI)								1								
Palmacorixa buenoi																
Palmacorixa gillettei								2								
Palmacorixa nana																
Sigara alternata								2	1							1
Sigara grossolineata								8	27		2			1		
Sigara lineata			5								1					
Trichcorixa calva			7						4							
Trichocorixa kanza								1	2		1					
corixid (EI)			2					1	14		3			1		3
Limnporus sp.																
Mesovelgia sp.								1			1					
Ranatra fusca											1					
Notonecta raleighi																
Neoplea striola																
Microvelia sp.								2								
Rhagovelia sp.											2					
unid. veliid (EI)																
Coptotomus lenticus									2		4				1	1
Hydroporus dichrous?																
Laccophilus maculosus								2	1		1					
Laccophilus sp.								1								
Liodessus sp.								1								
Dineutus nr. assimilis				1												
Dineutus sp.				1												
Gyrinus marginellus														4		
Gyrinus sp.								1								

Appendix W continued. Macroinvertebrates collected from the Rock River mainstem and direct tributaries, 1998.

Organism	Stream Name:															
	Station:															
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Haliplus immaculicollis																
Peltodytes duodecimpunctatus																
Peltodytes edentulus									8							1
Helophorus marginicollis																
Berosus peregrinus																
Cercyon? sp.		1														
Enochrus pygmaea								2						1		
Hydrophilous triangularis									1							
Paracymus subcupreous																
Sperchopsis tessellata										1		1	1			
Tropisternus glaber								1			3					
Tropisternus lateralis nimbatus					2				1						1	
Tropisternus sp.								2						1	1	1
Ectopria nervosa														2		
Cyphon sp.		1	1	1								1				1
Scirtes sp.																
Tanytarsus sp. (inc., pupa)																
unid. empidid (pupa)									1				1			
Allognosta sp.																
Total Benthos		735	462	287	463	215	565	512	382	306	501	225	344	393	340	358
Total Families		24	20	21		18	21	26	19	20	34	20	21	29	21	23
Total Genera		36	32	31		27	38	51	34	25	54	31	33	48	31	33
Total Species		43	37	37		34	46	62	45	29	67	36	39	55	35	37
Total OTUs		0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
Sample Site		P-11	P-15	P-20	P-21	P-23	P-24	PK-01	PHB-01	PSB-01	PH-16	PN-02	PN-03	PP-01	PJ-01	PHE-01
Total MBI Benthos		733	446	284	462	213	565	484	320	305	481	223	339	380	337	350
MBI		4.2	5.8	4.8	5.3	4.5	5.4	5.4	6.5	4.8	4.9	4.3	5.0	5.0	6.3	5.5

**Appendix X. Macroinvertebrates collected in the Green River Basin, 1999.**

Organism	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield Ditch Sp. Ditch Union								
	Station: PB-05 PBU-10 PB-10 PB-19 PB-02 PBS-01 PBP-01 PBO-10								
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6		1			4	3		1
Branchiobdellidae	10		11				1		
Lumbricidae	10		1				1		
Chaetogaster limnaei	10								
Dero sp.	10								
Nais behningi	10				1				
Nais bretscheri	10			2	1				
Nais communis	10								
Nais pardalis	10				2	9	1		
Nais variabilis	10	1				3		2	
Ophidonais serpentina	10							1	
Pristina leidy	10								
Pristiniella sp. (inc. spec.)	10							1	
Aulodrilus pigueti	10	1						1	
Limnodrilus cervix	10				3				3
Limnodrilus hoffmeisteri	10	1			2				10
Limnodrilus udekemianus	10								2
Immature Tubificid without hair chaetae	10				1			1	45
Immature Tubificid with hair chaetae	10	1			5				16
Mooreobdella fervida	8								1
Mooreobdella microstoma	8								
Erpobdellidae (young specimens)	8								
Helobdella stagnalis	8								2
Placobdella montifera	8								
Placobdella multilineata	8					1			
Placobdella papillifera	8								1
Caecidotea intermedius	6					1			
Caecidotea (imm, females)	6		1			3	2		
Crangonyx sp.	4								
Gammarus pseudolimnaeus	3	12	11	19	3				
Gammarus sp. (inc. spec.)	3					1			
Hyalella azteca	5			1				1	54
Orconectes virilis	5	1	3				1		
Baetis flavistriga	4								
Baetis intercalaris	7			13	13				

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield								
	Station: PB-05 PBU-10 PB-10 PB-19 PB-02 PBS-01 PBP-01 PBO-10								
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Baetis (inc., EI)	4			1					
Callibaetis sp.	4	1					10	13	
Paracloeodes abditus	4					1			
Pseudocloeon ephippiatum	4								
Pseudocloeon longipalpus	4			25					
Pseudocloeon propinquum	4	3	15		8	2	1		
Procloeon sp.	4					1	1		
Baetidae (inc., EI)	4				1				
Baetisca sp.	3								
Americaenis ridens	6								
Caenis hilaris	6					2			
Caenis latipennis	6	28	17	2	1	2	3	3	1
Caenis punctata	6						6	2	
Caenis sp. (EI)	6	4	2			1			
Ephemera sp.	3								
Hexagenia limbata	5		2			1	1	57	
Hexagenia munda	6							4	
Hexagenia sp. (EI)	6								
Heptagenia diabasias	4		4	7					
Heptagenia flavascens	2			1	8				
Heptagenia sp.	3		1				1		
Leuctocuta sp.	3			2	2				
Stenacron interpunctatum	4		2	11	4	24	25		
Stenonema exiguum	5			1	5	6	4		
Stenonema integrum	4			3	2	2			
Stenonema pulchellum	3				1	2	3		
Stenonema terminatum	4		1	15	5	18	4		
Stenonema spp.	4			3		4			
Heptageniidae (inc., EI)	3.5			1					
Isonychia sp.	3		1	51	5	1			
Tricorythodes sp.	5	12	17	26	68	29	14	1	3
Anax junius	5							1	
Boyeria vinosa	3		1		2	1		1	1
Calopteryx maculata	4						2		
Hetaerina americana	3			2	23	7	2	1	3
Calopterygidae (EI)	3.5								
Argia apicalis	5							2	
Argia moesta	5					6			
Argia tibialis	5					7			

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Tolerance	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield Ditch Sp. Ditch Union Station: PB-05 PBU-10 PB-10 PB-19 PB-02 PBS-01 PBP-01 PBO-10 No. No. No. No. No. No. No. No.							
		No.	No.	No.	No.	No.	No.	No.	No.
Argia sp. (inc., EI)	5					12		5	1
Enallagma antennatum	6						3	2	
Enallagma carunculatum	6							9	
Enallagma spp. (inc., EI)	6		1	3			3	1	
Ischnura polita?	6			2					
Ischnura verticalis?	6							3	
Ischnura sp. (inc., EI)	6			3		2	2	3	1
Coenagrionidae (EI)	5.5			1		1	2	2	
Gomphurus externus	7	2						1	2
Gomphurus sp. (EI)	7				6			1	
Progomphus sp.	5							1	
Stylurus laurae	4.5	2				1			
Stylurus notatus	4.5	2							
Stylurus sp. (EI)	4.5					1			
Pantala flavascens	7							2	
Plathemis sp.	3							20	16
Capniidae (VEI)	1.5								
Corydalus cornutus	3								
Sialis sp.	4					1			
Climacea sp.	1								
Cheumatopsyche sp.	6		1	29	32	3			3
Hydropsyche betteni complex	5			4					
Hydropsyche bidens	5				27				
Hydropsyche bronta	5		1	20	14				
Hydropsyche morosa	4			25	28				1
Hydropsyche bifida-group (bronta/morosa)	5			5	2				
Hydropsyche arinale	5			1					
Hydropsyche simulans	5			9	41	4	1		5
Hydropsyche spp. (EI)	5			8	3		1		
Potamyia flava	4			1	1				
Hydropsychidae (EI)	5.5			7	13				
Hydroptila sp.	2			2	2				
Nectopsyche candida	3				3	6			
Nectopsyche diarina	3	2	2	2	2	6		1	
Oecetis cinerascens	5							1	
Oecetis sp. A	5							1	
Chimarra sp.	3								
Cyrnellus fraternus	5				1	1			

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Tolerance	Stream Name: Green R. Willow Cr. Green R. Green R. Green R.					Winnebago	Walnut	Fairfield
		Station: PB-05	PBU-10	PB-10	PB-19	PB-02	Ditch	Sp. Ditch	Union Sp. D.
		No.	No.	No.	No.	No.	No.	No.	No.
Polycentropodidae (inc. spec.)	3.5								
Helichus lithophilus	4					4		1	
Helichus striatus	4			1					2
Ancyronyx variegatus	2				1	7			
Dubiraphia minima	5	5	2	18	4	1	25		18
Dubiraphia quadrinotata	7	10	3	2		1			8
Dubiraphia spp.	5	2	4		1	1		5	2
Macronychus glabratus	2	1	1	1	17	59	29		2
Optioservus fastiditus	4								
Optioservus sp. (L)	4								
Stenelmis crenata	7	1							
Stenelmis sexlineata	7			1	1				
Stenelmis crenata-gr.	7				1				
Stenelmis humerosa-sinuata-gr.	7			6	28	11	3		3
Stenelmis spp. (L)	7			2	2			1	
Elmidae (EI)	5						1		
Probezzia sp.	5							1	
Ablabesmyia annulata	6	1							
Ablabesmyia mallochi	6		1		1	3	4	1	
Ablabesmyia monilis	6						2		
Axarus sp.	6								
Cardiocladius sp.	6								
Chironomus sp.	11	6			2	11	6		
Cladopelma sp.	6								
Cladotanytarsus mancus-gr.	7		1		1			2	
Clinotanypus sp.	6								14
Conchapelopia sp.	6	2	2					1	2
Conchapelopia genus group (EI)	6								
Cricotopus (C.) bicinctus	10	1		1	4	1			3
Cricotopus (C.) tremulus-gr.	8	4			4				
Cricotopus (C.) sp.	8		1	3	1	3			
Cricotopus (I.) sp.	8	1							
Cricotopus/Orthocladius	6								1
Cryptochironomus sp.	8	7	1		13			3	2
Cryptotendipes sp.	6	1							



Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield								
	Station: PB-05 PBU-10 PB-10 PB-19 PB-02 PBS-01 PBP-01 PBO-10								
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Dicrotendipes modestus	6							3	
Dicrotendipes neomodestus	6				1	2		3	
Dicrotendipes sp.	6					2		1	
Endochironomus nigricans	6						1		
Glyptotendipes sp.	10				2	5	1	91	1
Harnischia sp.	6								
Hayesomyia senata	6								
Labrundinia pilosella	4					1			
Labrundinia sp. (EI)	4					1			
Lopescladius sp.	6								
Meropelopia sp.	6						1		
Microtendipes pedellus-gr.	6				2				
Nanocladius distinctus	3								
Nanocladius sp. (EI)	3								
Paracladopelma nereis	4				1	4			
Parakiefferiella sp.	6								
Paratanytarsus sp.	6		1				1		3
Pentaneuria sp.	3								
Phaenopsectra obediens-gr.	4		1						
Phaenopsectra punctipes-gr.	4								
Polypedilum convictum-gr.	6		1	3	5	7			
Polypedilum fallax	6				3				
Polypedilum halterale-gr.	4				1	2			
Polypedilum illinoense	5	1		6	19	28	9		
Polypedilum scalaenum-gr.	6								
Polypedilum sp.	6			2					
Procladius sp.	8	1			1			2	1
Psectrotanypus dyari	6								
Rheocricotopus robacki	6								
Rheotanytarsus sp.	6		1	3	21	46			
Stenochironomus sp.	3				1		1		
Tanytus neopunctipennis	8	3					2	2	38
Tanytarsus glabascens-gr. sp. 1	7	1				1		1	
Tanytarsus sp. 05	7							1	

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Tolerance	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield Ditch Sp. Ditch Union Sp. D.							
		Station: PB-05	PBU-10	PB-10	PB-19	PB-02	PBS-01	PBP-01	PBO-10
		No.	No.	No.	No.	No.	No.	No.	No.
Tanytarsus sp. 08-gr.	7		1						
Tanytarsus sp. 13A	7				1				
Thienemanniella xena	2				4	1	1		
Thienemanniella sp.	2						1		
Thienemannimyia genus group (EI)	6					1			
unid. chironomini (EI, inc. spec.)	6					1	2		3
unid. orthocladini (EI)	6			1					
unid. tanypodinae (inc. spec., EI)	6				1	1	1	1	1
Anopheles sp.	8							1	
Hemerodromia sp.	6								
Scatophila sp.	6								
Muscidae?	8				1				
Simulium jenningsi complex	4				6				
Simulium meridionale?	1								
Simulium vittatum complex	8								
Simulium sp. (EI)	6								
Chrysops sp.	7								
Tabanus sp.	7								1
Pilaria sp.	4								
Ferrissia rivularis	7								
Ferrissia sp.	7		1						
Fossaria obrussa	7					1	1	1	
Fossaria sp. (small, imm.)	7							1	
Pseudosuccinea columella	7								
Physella sp.	9				1	2	1	68	1
Musclium transversum	5								
Pisidium casertanum	5								1
Pisidium compressum	5								1
Sphaerium striatinum	5								
Sphaeriidae (inc., imm.)	5								
Unionidae (small, imm.)	1.5							1	
Gordius sp.	--								
Argulus sp.	--								
Hygrobates sp.	--								
Sperchon sp.	--			1					
Acariformes	--								

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Tolerance	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Ditch Walnut Sp. Ditch Fairfield Union Sp. D.							
		Station: PB-05	PBU-10	PB-10	PB-19	PB-02	PBS-01	PBP-01	PBO-10
		No.	No.	No.	No.	No.	No.	No.	No.
Isotomidae	--								
Belostoma flumineum	--							1	
Belostoma sp. (EI)	--			1			1	3	
Palmarcorixa buenoi	--								
Palmarcorixa gillettei	--						6		8
Palmarcorixa nana	--								
Palmarcorixa sp. (inc. spec.)	--								
Sigara alternata	--						1		
Sigara grossolineata	--	1					3		1
Trichocorixa calva	--	1						15	5
Trichocorixa kanza	--	2					9	6	
corixid (EI)	--	2		1			22	1	14
Limnporus sp.	--					1			
Rheumatobates sp.	--								
Trepobates sp.	--							1	
Mesovelgia sp.	--		1					1	
Notonecta irrorata	--								
Notonecta lunata	--				1				
Microvelia sp.	--							1	
Rhagovelia sp.	--								
Leptoceridae (pupa)	--		1			3			
Hydroporus nr. paugus	--				1				
Hydrovatus pustulatus	--				1				
Laccophilus maculosus	--							35	
Laccophilus sp.	--							8	
Liodessus affinis	--				1				
nr. Sanfillipodytes sp.	--								
unid. dytiscid (EI)	--								
Dineutus assimilis	--							2	
Dineutus sp.	--							1	
Gyrinus marginellus	--								
Gyrinus sp.	--						1		
Haliphus borealis	--								1
Haliphus immaculicollis	--								
Haliphus triopsis	--								2
Peltodytes duodecimpunctatus	--					1	1	1	4
Peltodytes edentulus	--	5						3	5
Peltodytes lengi	--		1				2		

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R. Willow Cr. Green R. Green R. Green R. Winnebago Walnut Fairfield Ditch Sp. Ditch Union								
	Station:	PB-05	PBU-10	PB-10	PB-19	PB-02	PBS-01	PBP-01	PBO-10
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Helophorus linearis	--			1					
Berosus aculeatus	--				1			1	
Berosus peregrinus	--						2		
Enochrus pygmaea	--							4	
Helocombus? sp.	--					1	1		
Sperchopsis tessellata	--				1				
Tropisternus glaber	--							1	
Tropisternus lateralis nimbatus	--	1						2	
Tropisternus natator	--							4	
Tropisternus sp.	--			1			5	3	
unid. hydrophilid (EI)	--		2				1		
Hydrocanthus iricolor	--								
Cyphon sp.	--			1				1	
Ceratopogonidae (unid. Pupa)	--							1	
Tanypus sp. (pupa)	--	1							
Tanytarsus sp. (inc., pupa)	--				1	2		3	
Stratiomys sp.	--		1				1	1	1

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Stream Name:	Green R.	Willow Cr.	Green R.	Green R.	Green R.	Winnebago Ditch	Walnut Sp. Ditch	Fairfield Union Sp. D.
Station:	PB-05	PBU-10	PB-10	PB-19	PB-02	PBS-01	PBP-01	PBO-10
Summary Data	No.	No.	No.	No.	No.	No.	No.	No.
Total Benthos	134	124	364	500	393	247	437	321
Total MBI Benthos	121	118	358	493	385	191	337	280
Total Families	14	22	22	23	27	24	32	22
Total Genera	30	36	33	53	45	45	50	39
Total Species	35	37	45	67	56	51	59	46
Total OTUs	39	41	55	76	70	60	77	51
MBI OTUs	32	36	49	69	65	46	53	42
MBI	6.1	5.4	4.6	5.3	4.9	4.8	7.3	7.0
Taxa MBI	6.5	5.5	5.1	5.8	5.4	5.6	6.2	6.5
Total MBI Taxa (genera)	23	31	27	42	43	33	35	29
Intolerant Taxa (genera)	10	15	18	23	25	17	16	11
Mayfly taxa (genera)	4	8	9	9	9	9	4	2
Caddisfly taxa (genera)	1	3	5	6	4	1	2	2
% Intolerant	36.36	58.47	75.98	64.10	65.97	72.25	33.83	39.29
% Tolerant	9.09	10.17	0.84	4.87	8.05	5.76	48.96	28.93
% Mayflies	39.67	52.54	45.25	24.95	24.94	38.22	23.74	1.43
% Caddisflies	1.65	3.39	31.56	34.28	5.19	1.05	0.89	3.21
% Gammarus	9.92	9.32	5.31	0.61	0.26	0.00	0.00	0.00
% Hyalella azteca	0.00	0.00	0.28	0.00	0.00	0.00	0.30	19.29
% Amphipoda	9.92	9.32	5.59	0.61	0.26	0	0.3	19.29
% Isopoda	0.00	0.85	0.00	0.00	1.04	1.05	0.00	0.00
% Oligochaeta	3.31	10.17	0.56	3.04	3.12	1.57	1.78	27.14
% Chironomidae	23.97	9.32	5.31	18.05	31.43	17.28	33.23	24.64
Collection Date	8/17/1999	8/17/1999	8/16/1999	8/20/1999	8/19/1999	8/18/1999	8/18/1999	8/18/1999
Collector	11	11	11	11	11	11	11	11
Sample Length (feet)	480	542	500	800		295	225	394
Duration (hours)	0.9	0.8	1.1	1.3		1.0	1.0	1.1
Sample Site	PB-05	PBU-10	PB-10	PB-19	PB-02	PBS-01	PBP-01	PBO-10

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.								
	Station: PB-08		Fairfield Ditch	Coal Cr.	Coal Cr.	Spring Cr.	Big Slough D.	Green R.	Mineral Cr.
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6	1	2	4			5	1	1
Branchiobdellidae	10				4	8	31		6
Lumbricidae	10		1		3		1		1
Chaetogaster limnaei	10								1
Dero sp.	10						1		
Nais behningi	10						2		5
Nais bretscheri	10								
Nais communis	10						1		
Nais pardalis	10	4							1
Nais variabilis	10	1			1		2		
Ophidonais serpentina	10								
Pristina leidy	10								1
Pristiniella sp. (inc. spec.)	10								
Aulodrilus pigueti	10								
Limnodrilus cervix	10								
Limnodrilus hoffmeisteri	10	1							1
Limnodrilus udekemianus	10			1	1				
Immature Tubificid without hair chaetae	10			9	8		2		1
Immature Tubificid with hair chaetae	10								
Mooreobdella fervida	8				1				3
Mooreobdella microstoma	8								1
Erpobdellidae (young specimens)	8			1					
Helobdella stagnalis	8		1						
Placobdella montifera	8		1						
Placobdella multilineata	8								1
Placobdella papillifera	8								
Caecidotea intermedius	6		39				1		
Caecidotea (imm, females)	6		45				1	1	
Crangonyx sp.	4				1		1	1	
Gammarus pseudolimnaeus	3			43		3	44	2	45
Gammarus sp. (inc. spec.)	3								
Hyaella azteca	5	2	115	4	13	19			4
Orconectes virilis	5			2	1	2	1		2
Baetis flavistriga	4			19			1		

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.								
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Baetis intercalaris	7	2		17			8	23	
Baetis (inc., EI)	4							1	
Callibaetis sp.	4		1		2				
Paracloeodes abditus	4	2							
Pseudocloeon ephippiatum	4							11	
Pseudocloeon longipalpus	4	1						5	
Pseudocloeon propinquum	4	4							
Procloeon sp.	4				1				
Baetidae (inc., EI)	4	1		2				2	1
Baetisca sp.	3							1	
Americaenis ridens	6							1	
Caenis hilaris	6				2			2	
Caenis latipennis	6		1		1				1
Caenis punctata	6				4				
Caenis sp. (EI)	6	1		1			1	1	
Ephemera sp.	3				1				
Hexagenia limbata	5		3		5				
Hexagenia munda	6		7		1			1	
Hexagenia sp. (EI)	6		1					1	
Heptagenia diabasias	4						21		
Heptagenia flavascens	2							2	
Heptagenia sp.	3								
Leuctocuta sp.	3								
Stenacron interpunctatum	4	9	13	10	10	55	1	51	
Stenonema exiguum	5	20		1	4			3	
Stenonema integrum	4	5			1			3	
Stenonema pulchellum	3	5			1			2	
Stenonema terminatum	4	27			10		3	11	
Stenonema spp.	4	13			1		1	7	
Heptageniidae (inc., EI)	3.5	6		2	1			7	
Isonychia sp.	3	12		2			2	5	
Tricorythodes sp.	5	152		2	12		3	93	
Anax junius	5								
Boyeria vinosa	3	1	2	1		1	3	1	9
Calopteryx maculata	4		2	4		4	3		8
Hetaerina americana	3	1	4	1	2	1	1		
Calopterygidae (EI)	3.5	1							
Argia apicalis	5				5	10		2	
Argia moesta	5	2							

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.								
	Tolerance	Fairfield		Coal Cr.		Spring	Big	Green R.	Mineral
		Station: PB-08	Ditch PBM-11	PBJA-05	PBJA-03	Cr. PBI-02	Slough D. PBG-10	PB-04	Cr. PBD-02
		No.	No.	No.	No.	No.	No.	No.	No.
Argia tibialis	5	11		9	20	5		11	1
Argia sp. (inc., EI)	5	17		10	23	7		4	3
Enallagma antennatum	6			14	4	9			
Enallagma carunculatum	6								
Enallagma spp. (inc., EI)	6			1					
Ischnura polita?	6								
Ischnura verticalis?	6								
Ischnura sp. (inc., EI)	6		19			3	3		1
Coenagrionidae (EI)	5.5	2			1			2	
Gomphurus externus	7	2		1	2	1	1	2	
Gomphurus sp. (EI)	7	2			1			5	
Progomphus sp.	5								
Stylurus laurae	4.5								
Stylurus notatus	4.5				1			2	
Stylurus sp. (EI)	4.5				1			3	
Pantala flavescens	7								
Plathemis sp.	3			1	3		1		
Capniidae (VEI)	1.5			1					
Corydalus cornutus	3							1	
Sialis sp.	4								
Climacea sp.	1		1						
Cheumatopsyche sp.	6	1		34			8	7	18
Hydropsyche betteni complex	5			75			5		29
Hydropsyche bidens	5	4						7	
Hydropsyche bronta	5			29					
Hydropsyche morosa	4			13			2		
Hydropsyche bifida-group (bronta/morosa)	5						3		
Hydropsyche arinale	5								
Hydropsyche simulans	5	36			1		48	51	
Hydropsyche spp. (EI)	5			7			3	9	2
Potamyia flava	4	1						4	
Hydropsychidae (EI)	5.5	8			1		2	30	
Hydroptila sp.	2	1						1	
Nectopsyche candida	3	3			1				
Nectopsyche diarina	3		3		1		5		
Oecetis cinerascens	5								
Oecetis sp. A	5								
Chimarra sp.	3			3					
Cyrnellus fraternus	5	1							



**Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.**

Organism	Stream Name: Green R.								
	Tolerance	Fairfield		Coal Cr.		Spring	Big	Green R.	Mineral
		Station: PB-08	PBM-11	PBJA-05	PBJA-03	Cr. PBI-02	Slough D. PBG-10	PB-04	Cr. PBD-02
		No.	No.	No.	No.	No.	No.	No.	No.
Polycentropodidae (inc. spec.)	3.5					1			
Helichus lithophilus	4				1				
Helichus striatus	4						1		1
Ancyronyx variegatus	2	12		2		1			
Dubiraphia minima	5	2	7		2	1	8	3	
Dubiraphia quadrinotata	7				1				1
Dubiraphia spp.	5	1	1	2	2	1	3	1	1
Macronychus glabratus	2	41		29	4	14	4	3	1
Optioservus fastiditus	4			2					
Optioservus sp. (L)	4			1					
Stenelmis crenata	7		1	6	2				2
Stenelmis sexlineata	7			4					
Stenelmis crenata-gr.	7			4					
Stenelmis humerosa-sinuata-gr.	7	3		31	1	1		5	
Stenelmis spp. (L)	7			95	1			1	6
Elmidae (EI)	5			1					
Probezzia sp.	5								
Ablabesmyia annulata	6								
Ablabesmyia mallochi	6								
Ablabesmyia monilis	6	2							
Axarus sp.	6				13			1	
Cardiocladius sp.	6				6				
Chironomus sp.	11	10					46	12	14
Cladopelma sp.	6						1		
Cladotanytarsus mancus-gr.	7				2			1	
Clinotanypus sp.	6		1	5					
Conchapelopia sp.	6			5			7		22
Conchapelopia genus group (EI)	6								2
Cricotopus (C.) bicinctus	10	5				1		6	
Cricotopus (C.) tremulus-gr.	8			1				1	
Cricotopus (C.) sp.	8	1		2			1	4	
Cricotopus (I.) sp.	8								
Cricotopus/Orthocladius	6			4				1	
Cryptochironomus sp.	8	1	1	1	3	3	7	7	3
Cryptotendipes sp.	6			8	5			1	1
Dicrotendipes modestus	6								

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.		Fairfield	Coal Cr.	Coal Cr.	Spring	Big	Green R.	Mineral
	Tolerance	Station: PB-08	Ditch PBM-11	PBJA-05	PBJA-03	Cr. PBI-02	Slough D. PBG-10	PB-04	Cr. PBD-02
		No.	No.	No.	No.	No.	No.	No.	No.
Dicrotendipes neomodestus	6	1			1				
Dicrotendipes sp.	6	1						1	
Endochironomus nigricans	6				2				
Glyptotendipes sp.	10	32			6			19	
Harnischia sp.	6				1				
Hayesomyia senata	6	6		2	1				
Labrundinia pilosella	4							1	
Labrundinia sp. (EI)	4								
Lopescladius sp.	6	1						1	
Meropelopia sp.	6							1	1
Microtendipes pedellus-gr.	6			5					
Nanocladius distinctus	3							2	
Nanocladius sp. (EI)	3	4		1			1	2	
Paracladopelma nereis	4							6	
Parakiefferiella sp.	6			3					3
Paratanytarsus sp.	6		4				3		
Pentaneuria sp.	3	2	2					2	
Phaenopsectra obediens-gr.	4						1		
Phaenopsectra punctipes-gr.	4		1						
Polypedilum convictum-gr.	6	14		18	1		2	30	4
Polypedilum fallax	6	1		1		2		1	
Polypedilum halterale-gr.	4				2			1	
Polypedilum illinoense	5	25	1	2	1	2	1	21	
Polypedilum scalaenum-gr.	6			1			5	3	
Polypedilum sp.	6	1		1			1		2
Procladius sp.	8			4					5
Psectrotanytus dyari	6								4
Rheocricotopus robacki	6						6		
Rheotanytarsus sp.	6	44					7	15	
Stenochironomus sp.	3		1				1		
Tanytus neopunctipennis	8			13					
Tanytarsus glabrascens-gr. sp. 1	7	2				1		1	2
Tanytarsus sp. 05	7				1				
Tanytarsus sp. 08-gr.	7								
Tanytarsus sp. 13A	7								
Thienemanniella xena	2						2		

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Tolerance	Stream Name: Green R.							
		Station: PB-08	Fairfield Ditch PBM-11	Coal Cr. PBJA-05	Coal Cr. PBJA-03	Spring Cr. PBI-02	Big Slough D. PBG-10	Green R. PB-04	Mineral Cr. PBD-02
Thienemanniella sp.	2								
Thienemannimyia genus group (EI)	6								
unid. chironomini (EI, inc. spec.)	6	12		1	1		3	3	
unid. orthoclaudiini (EI)	6						1		
unid. tanypodinae (inc. spec., EI)	6								
Anopheles sp.	8			3		1			
Hemerodromia sp.	6	2					1		
Scatophila sp.	6								1
Muscidae?	8							1	
Simulium jenningsi complex	4							1	
Simulium meriodionale?	1							2	
Simulium vittatum complex	8						8		2
Simulium sp. (EI)	6							3	
Chrysops sp.	7			2					
Tabanus sp.	7			1	1				
Pilaria sp.	4		2						
Ferrissia rivularis	7								1
Ferrissia sp.	7								
Fossaria obrussa	7	1							
Fossaria sp. (small, imm.)	7								
Pseudosuccinea columella	7							1	
Physella sp.	9	1		7	5		1	1	13
Musclium transversum	5						2	3	
Pisidium casertanum	5								
Pisidium compressum	5								
Sphaerium striatinum	5			1					8
Sphaeriidae (inc., imm.)	5							1	
Unionidae (small, imm.)	1.5								
Gordius sp.	--					1			
Argulus sp.	--					1			
Hygrobates sp.	--							1	
Sperchon sp.	--								
Acariformes	--						1	1	
Isotomidae	--								1
Belostoma flumineum	--				2				
Belostoma sp. (EI)	--		1				3		
Palmacorixa buenoi	--		1	1	1				

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.		Fairfield	Coal Cr.		Spring	Big	Green R.	Mineral
	Tolerance	Station: PB-08	Ditch PBM-11	PBJA-05	PBJA-03	Cr. PBI-02	Slough D. PBG-10	PB-04	Cr. PBD-02
		No.	No.	No.	No.	No.	No.	No.	No.
Palmarcorixa gillettei	--	4	1			19	1		
Palmarcorixa nana	--	3							
Palmarcorixa sp. (inc. spec.)	--	1							
Sigara alternata	--								
Sigara grossolineata	--		1			1			
Trichocorixa calva	--	4	10	12	10	4		8	2
Trichocorixa kanza	--	2	2		2	1		3	
corixid (EI)	--	12	8	15	45	6		33	1
Limnporus sp.	--								
Rheumatobates sp.	--		1	2		2			
Trepobates sp.	--								
Mesovelgia sp.	--								
Notonecta irrorata	--								1
Notonecta lunata	--								
Microvelia sp.	--								
Rhagovelgia sp.	--			3					
Leptoceridae (pupa)	--	3			2		4		
Hydroporus nr. paugus	--	1			1				
Hydrovatus pustulatus	--								
Laccophilus maculosus	--	1		1	11	1			
Laccophilus sp.	--				1		1		
Liodessus affinis	--								
nr. Sanfillipodytes sp.	--				1				
unid. dytiscid (EI)	--							1	
Dineutus assimilis	--		2						
Dineutus sp.	--				1				
Gyrinus marginellus	--					13			
Gyrinus sp.	--					2			
Haliphus borealis	--			1					
Haliphus immaculicollis	--		2						
Haliphus triopsis	--		1						
Peltodytes									
duodecimpunctatus	--		20	1					
Peltodytes edentulus	--		3	1		1		3	
Peltodytes lengi	--		1						
Helophorus linearis	--								
Berosus aculeatus	--			1	1				
Berosus peregrinus	--				1				
Enochrus pygmaea	--								
Helocombus? sp.	--								

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Organism	Stream Name: Green R.								
	Fairfield		Coal Cr.		Spring		Big		Mineral
	Station:	PB-08	PBM-11	PBJA-05	PBJA-03	PBI-02	PBG-10	PB-04	PBD-02
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.
Sperchopsis tessellata	--								
Tropisternus glaber	--	1							
Tropisternus lateralis nimbatus	--	1							
Tropisternus natator	--					3			
Tropisternus sp.	--								
unid. hydrophilid (EI)	--								
Hydrocanthus iricolor	--				1				
Cyphon sp.	--	2	1					1	
Ceratopogonidae (unid. Pupa)	--								
Tanytus sp. (pupa)	--			1					
Tanytarsus sp. (inc., pupa)	--	1						2	
Stratiomys sp.	--								

Appendix X continued. Macroinvertebrates collected in the Green River Basin, 1999.

Stream Name:	Green R.	Fairfield Ditch	Coal Cr.	Coal Cr.	Spring Cr.	Big Slough D.	Green R.	Mineral Cr.
Station:	PB-08	PBM-11	PBJA-05	PBJA-03	PBI-02	PBG-10	PB-04	PBD-02
Summary Data	No.	No.	No.	No.	No.	No.	No.	No.
Total Benthos	627	338	632	303	212	356	603	252
Total MBI Benthos	591	283	593	223	157	346	550	247
Total Families	26	22	31	31	21	32	30	25
Total Genera	48	35	55	51	32	50	55	42
Total Species	61	41	66	65	35	57	69	44
Total OTUs	77	45	78	79	39	67	90	52
MBI OTUs	64	30	67	65	26	62	81	48
MBI	5.2	5.3	5.6	5.7	4.8	6.3	5.4	5.9
Taxa MBI	5.5	5.2	5.6	5.7	5.4	5.7	5.3	6.7
Total MBI Taxa (genera)	41	25	45	39	22	42	49	33
Intolerant Taxa (genera)	21	15	23	20	13	24	25	12
Mayfly taxa (genera)	8	4	6	8	1	7	11	2
Caddisfly taxa (genera)	6	1	3	2	1	3	4	2
% Intolerant	71.91	56.18	47.55	60.09	80.89	50.87	64.00	46.56
% Tolerant	9.14	0.35	2.87	12.56	5.73	25.14	6.91	17.81
% Mayflies	43.99	9.19	9.44	25.56	35.03	11.85	42.36	0.81
% Caddisflies	9.31	1.06	27.15	1.79	0.64	21.97	19.82	19.84
% Gammarus	0.00	0.00	7.25	0.00	1.91	12.72	0.36	18.22
% Hyalella azteca	0.34	40.64	0.67	5.83	12.10	0.00	0.00	1.62
% Amphipoda	0.34	40.64	7.93	6.28	14.01	13.01	0.55	19.84
% Isopoda	0.00	29.68	0.00	0.00	0.00	0.58	0.18	0.00
% Oligochaeta	1.02	0.35	1.69	7.62	5.10	11.56	0.00	6.88
% Chironomidae	27.92	3.89	13.15	20.63	5.73	27.75	26.18	25.51
Collection Date	8/30/1999	8/19/1999	8/31/1999	8/31/1999	9/1/1999	9/1/1999	9/2/1999	9/1/1999
Collector	11	11	11	11	11	11	11	11
Sample Length (feet)	300	385	528	465	345	175	300	305
Duration (hours)	1.2	1.0	1.2	1.2		1.0	1.3	1.1
Sample Site	PB-08	PBM-11	PBJA-05	PBJA-03	PBI-02	PBG-10	PB-04	PBD-02

**Appendix Y. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.**

	Stream Name:	Kish. R.	Kish. R.	Kish. R.	Kish. R.	Killbuck	S. Br. Kish. R.	Beaver Cr.
	Station:	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6	2	17	3	13	1	10	2
Oligochaeta	10	19	8	36	18	13	4	43
Erpobdella punctata	8							
Mooreobdella fervida	8							
Mooreobdella microstoma	8							
unid. erpobdellid (imm. specimens)	8						4	
Placobdella papillifera	8	1						
Glossiphoniidae	8							
Caecidotea intermedius	6	22		5	12			
Caecidotea (imm, females)	6	18		4	6			
Gammarus pseudolimnaeus	3	244	67	12	71	11		79
Hyaella azteca	5	1	87	53	146	11		12
Cambarus diogenes	5							1
Orconectes rusticus	5	2	1	2	1	3	1	6
Orconectes virilis	5	1			1			1
Baetis flavistriga	4				1	1		2
Baetis intercalaris	7	1	36		7	34	7	3
Baetis (inc., EI)	4							
Callibaetis sp.	4			6	2		2	
Paracloeodes minutus	4		2		1			
Plauditus sp.	4		6					
Procloeon sp.	4						1	
Procloeon/Centropilum (inc.)	3				3			
Pseudocloeon longipalpus	4							
Pseudocloeon propinquum	4	22			3			
unid. baetid (inc., EI)	4			1		1		
Baetisca sp.	3				1			
Caenis hilaris	6		8					
Caenis latipennis	6						1	2
Caenis punctata	6							
Caenis spp. (EI)	6		4		1			
Hexagenia bilineata	6							
Hexagenia limbata	5	1	1					6
Hexagenia sp. (EI)	6							
Heptagenia diabasias	4	5			1			
Heptagenia sp.	3							1
Leuctocuta sp.	3		1		2	11		
Stenacron interpunctatum	4	13	17		16	3	4	27
Stenacron sp.	4			28				
Stenonema exiguum	5	8	3		9	6		
Stenonema mediopunctatum	2					7		

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Stream Name: Kish. R. Kish. R. Kish. R. Kish. R. Killbuck S. Br. Beaver							
	Station: Tolerance	PQ-07 No.	PQ-12 No.	PQ-13 No.	PQ-14 No.	PQB-03 No.	PQC-02 No.	PQD-05 No.
Stenonema pulchellum	3		1					
Stenonema terminatum	4	22	6		19	8		1
Stenonema spp.	4	2			3	2		
unid. heptageniid (inc., EI)	3.5	3						
Isonychia sp.	3		21			53		2
Ephoron album	2				1	4		
Anthopotamus sp.	4		4		28	1		
Tricorythodes sp.	5	4	295		108	16	6	3
Ephemeroptera (EI)	4							
Aeshna umbrosa	4							
Anax junius	5			1			1	
Boyeria vinosa	3	1				5	1	2
unid. aeshnid (EI)	4.5							
Calopteryx maculata	4							
Calopteryx (EI)	4	4						
Hetaerina americana	3		3		2	3		
Hetaerina sp. (EI)	3							
unid. calopterygid (EI)	3.5							
Argia apicalis	5		17		2	1	40	
Argia fumipennis	5			1				
Argia moesta	5							
Argia tibialis	5						2	
Argia sp. (inc., EI)	5		18			4	31	3
Enallagma antennatum/divagans (EI)	6			6				
Enallagma cyathigerum	6				1			
Enallagma cyathigerum/borealis	6						15	
Enallagma exsulans	6						1	
Enallagma signatum	6				1		1	
Enallagma spp. (inc., EI)	6			6	4	1	9	2
Ischnura verticalis	6			1	2		14	
Ischnura verticalis/posita (EI)	6			3				
Ischnura sp. (inc., EI)	6			6	3		15	1
unid. coenagrionid (EI)	5.5		1	2	2		5	2
Gomphus externus	7							
Gomphus cf. hybridus	7						1	
Gomphus sp. (EI)	7		2		1			
Ophiogomphus sp.	2				1			
Stylurus notatus	4.5		1					
Stylurus spiniceps	4.5	1	1		1			
unid. gomphid (EI)	4.5							
Macromia illinoiensis	4.5							
unid. macromiinae (EI)	4.5							



Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

	Stream Name:	Kish. R.	Kish. R.	Kish. R.	Kish. R.	Killbuck	S. Br. Kish. R.	Beaver Cr.
	Station:	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Plathemis lydia	3		1					
Pteronarcys dorsata	2		2		1	3		
Corydalus cornutus	3					10		
Chaulioides rasticornis	4		1					
Sialis sp.	4		5	11		6		1
Climacea sp.	1							
Brachycentrus numerosus	1	1	2			1		
Helicopsyche borealis	2							
Cheumatopsyche sp.	6	25	384		13	21	381	48
Hydropsyche bidens	5		19		1	1		
Hydropsyche bronta	5		17		4	38	1	38
Hydropsyche depravata complex (=betteni complex)	5						1	11
Hydropsyche morosa	4		86			50		5
Hydropsyche simulans	5	5	15		4	37		3
Hydropsyche slossonae	5		1					
Hydropsyche bronta/morosa (EI)	4		6			14		5
Hydropsyche spp. (EI)	5	3	4			1		3
Potamyia flava	4		8					
hydropsychid (EI)	5.5	11	11			28	19	2
Hydroptila sp.	2		4		7	1	12	9
unid. hydroptilid (pupa)	2						5	
Nectopsyche candida	3		1					
Nectopsyche diarina	3				1			
Nectopsyche exquiseta	3		2		2	1		
Nectopsyche sp. (EI)	3							
Oecetis inconspicua complex	5			1				
Oecetis sp. (EI)	5							
Trienodes sp. (EI)	3							
unid. leptocerid (pupa)	3.5							
Pycnopsyche sp.	3	1				2		
unid. limnephilid (pupa)	3.5	1						
Chimarra sp.	3					1		
unid. philopotamid (EI)	3.5							
Polycentropus sp.	3							
Nyctiophylax moestus	1				1			
Trichoptera (EI)	3.5		1					
Helichus striatus	4							
Ancyronyx variegatus	2		9		4			
Dubiraphia spp.	5	2	6	27	21	3		23
Macronychus glabratus	2	24	38	15	30	12		3
Optioservus fastiditus	4							1

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

	Stream Name:	Kish. R.	Kish. R.	Kish. R.	Kish. R.	Killbuck	S. Br.	Beaver
	Station:	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	Kish. R.	Cr.
Organism	Tolerance	No.	No.	No.	No.	No.	PQC-02	PQD-05
Optioservus sp. (L)	4							5
Stenelmis bicarinata	7							
Stenelmis crenata	7		2		10	1	1	4
Stenelmis grossa	7		7		13	8	1	
Stenelmis sexlineata	7							2
Stenelmis spp. (L)	7		17		14	4	5	29
unid. elmids (EI)	5	1		1				
Atrichopogon sp.	2				1			
Bezzia/Palpomyia sp.	6		1				1	
unid. genus (EI)	5		2					
Chaoborus punctipennis	8							
Ablabesmyia annulata	6							
Ablabesmyia mallochii	6							
Ablabesmyia monilis	6				3		3	
Cardiocladius sp.	6		2					
Chironomus sp.	11		2	2	11			4
Cladopelma sp.	6							
Cladotanytarsus sp. A	7							1
Cladotanytarsus sp. B	7	2			3			
Cladotanytarsus sp. C	7		1					
Cladotanytarsus cf. daviesi	7	3	1		1			
Cladotanytarsus (pupa)	7							
Clinotanypus sp.	6			2				1
Conchapelopia sp.	6	1			3	2		
Conchapelopia genus group (EI)	6	1		1		1	3	1
Corynoneura sp.	2	1			1			
Cricotopus (C.) annulator complex	8							
Cricotopus (C.) bicinctus	10						3	1
Cricotopus (C.) cf. triannualatus/infuscatus	8						6	
Cricotopus (C.) cf. vierriensis	8				1			
Cricotopus (C.) sp.	8		6				6	1
Cricotopus/Orthocladius	6		1					1
Cryptochironomus sp.	8		5	1	4	1	6	6
Cryptotendipes sp.	6					1		3
Dicrotendipes modestus	6				1			
Dicrotendipes neomodestus	6							
Dicrotendipes sp.	6		12		1		24	
Endochironomus subtendens	6			3	1			
Epoicocladius flavens	6							
Eukiefferiella devonica-gr.	4							
Eukiefferiella similis-gr.	4							

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Tolerance	Stream Name: Kish. R.							S. Br.	Beaver
		Station: PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05	Kish. R.	Cr.
		No.	No.	No.	No.	No.	No.	No.		No.
Glyptotendipes sp.	10		2		3	1				
Harnischia sp.	6						3			
Helopelopia sp.	6			1						
Larsia sp.	6		2		2					
Lipinella sp.	6				7					
Meropelopia sp.	6		3							1
Meropelopia genus gr.	6									
Microtendipes pedellus-gr.	6		25		1					2
Nanocladius crassicornus	3		2							1
Nanocladius crassicornus/rectinervis	3									1
Nanocladius distinctus	3						8			
Nanocladius sp. (EI)	3	1	1							
Natarsia sp. A	6					1				1
Nilotanytus fimbriatus	6									
Orthocladius sp.	4		2							
Parachironomus frequens	8		1							
Parachironomus tenuicaudatus complex	8				1					
Parakiefferiella sp.	6	1			2	2				1
Paralauterborniella nigrohalteralis	6	1								4
Paratanytarsus sp.	6	2		1						1
Paratendipes albimanus-gr.	6	1								
Pentaneura inconspicua complex	3				1					
Phaenopsectra obediens-gr.	4									
Phaenopsectra punctipes-gr.	4			1						
Polypedilum convictum-gr.	6	2	11		1	3	29			19
Polypedilum fallax-gr.	6	2	1		1					
Polypedilum halterale-gr.	4	1	1		1					
Polypedilum illinoense-gr.	5	2	6	8	26	6	21			14
Polypedilum laetum	6				2					
Polypedilum scalaenum-gr.	6	5	1		1		11			
Polypedilum sp.	6		1		1		3			
Procladius sp.	8	1	3	1			8			6
Rheocricotopus robacki	6	1			1					
Rheotanytarsus sp.	6	2	11		1	3				
Saetheria tylus	6									
Stempellinella cf. leptocelloides	6									
Stempellinella sp. A	6	1								
Stenochironomus sp.	3					1				1
Stictochironomus sp.	5		1							1
Tanytus neopunctipennis	8						6			
Tanytarsus glabrascens-gr. sp. 1	7					1	3			

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Tolerance	Stream Name: Kish. R.		Kish. R.		Kish. R.		Kish. R.		Killbuck	S. Br. Kish. R.	Beaver Cr.
		Station: PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05				
		No.	No.	No.	No.	No.	No.	No.				
Tanytarsus sp. 08D	7											
Tanytarsus sp. 13A	7		1									
Tanytarsus sp. 13C	7						3					
Tanytarsus sp. (inc., pupa)	7	1		1								
Thienemanniella xena	2	5						1				
Thienemanniella sp.	2	1				1						
Thienemannimyia genus group (EI)	6											
Tvetenia vitracies	6											
Tvetenia sp.	6		2									
Xenochironomus xenolabis	4			2								
unid. chironomini (EI, inc. spec.)	6		1		1	11		1				
unid. tanypodinae (inc. spec., EI)	6				1							
unid. tanytarsini (inc. spec., EI)	6											
Anopheles sp.	6		1									
unid. culicid (inc., pupa)	8			1								
Hemerodromia sp.	6		2			2	1					
unid. empidid (pupa)	6							1				
Pericoma sp.	11	1										
Simulium jenningsi complex	4	2										
Simulium tuberosum complex	4											
Similium vittatum complex	8						1					
Simulium sp. (EI)	6					18						
Chrysops sp.	7											
Tabanus sp.	7											
Antocha sp.	5				1							
Hexatoma sp.	4											
Limonia sp.	3			1	2							
unid. tipulid (pupa)	4			1								
Ferrissia rivularis	7				1							
Ferrissia walkeri	7			2								
Ferrissia sp.	7	2			1							
Fossaria sp.	7		1		2		2					
Pseudosuccinea columella	7					1						
Physella sp.	9	3	13	1	17	3	33	7				
Gyraulus deflectus	6											
unid. planorbid (imm. specimen)	6.5											
(no shell)	6.5	1										
Amnicola limosa	4											
Amnicola sp.	4				1							
Birgella subglobosa	4											
Pleurocera	7		3			1						
unid. unionid	1.5											

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Stream Name: Kish. R.		Kish. R.		Kish. R.		Kish. R.		Killbuck	S. Br. Kish. R.	Beaver Cr.
	Station:	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05			
	Tolerance	No.	No.	No.	No.	No.	No.	No.			No.
Musclium transversum	5				1		1				
Pisidium compressum	5	1									
Pisidium spp.	5						2				
Sphaerium striatinum	5										
unid. sphaeriid (inc., imm.)	5	1									
Hydra sp.				4							
Prostoma sp.			1								
Plumatella			1								1
Urnatella gracilis					1						1
Hygrobates sp.											
Lebertia sp.											1
Limnesia sp.					1						
Sperchon sp.			1								
Unionicola sp.											
Entomobryidae			2								
Belostoma flumineum		3	1	2			3				
Belostoma (EI)				12	1		1				
Palmacorixa buenoi				26							
Palmacorixa gillettei		23	15	19	9	5	2	7			
Palmacorixa nana		2		8				1			
Sigara alternata		1	1								
Sigara grossolineata		10		2	1	2	1	6			
Sigara lineata					12						
Trichcorixa calva		79	5	50	14	7	1				
Trichocorixa kanza		4	5		4		1	3			
corixid (EI)		61	61	41	90	6	4	37			
Gerris sp.				1							
Metrobates sp.			1								
Rheumatobates sp.		4		3			1	1			
Trepobates sp.				2							
Mesovelia sp.				1			2				
Ranatra fusca											
Neoplea striola				1	2						
Microvelia sp.				2				1			
Rhagovelia sp.			1								
Petrophila sp.			8								
unid. lepidopteran (EI)				1							
Coptotomus lenticus											
Laccophilus maculosus											
Liodessus cf. abjectus				1							
Neoporus cf. dimidiatus											
Neoporus cf. undulatus											

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Stream Name:					S. Br.		Beaver
	Station:					Kish. R.		Cr.
	Tolerance	PQ-07 No.	PQ-12 No.	PQ-13 No.	PQ-14 No.	PQB-03 No.	PQC-02 No.	PQD-05 No.
Neoporus sp.							1	
Gyrinus sp.				2	3	1		
Haliphus immaculicollis								
Peltodytes duodecimpunctatus							3	
Peltodytes edentulus					2		7	
Berosus aculeatus				1			1	
Berosus peregrinus				1			2	
Berosus sp.								
Enochrus ochraceus								
Hygrotus sp.		1						
Laccobius sp.							1	
Paracymus subcupreous								
Sperchopsis tessellata			2		1			
Tropisternus ellipticus								
Tropisternus glaber							1	1
Tropisternus mixtus								
Tropisternus sp.				1			2	
unid. Hydrophild		1						
Cyphon sp.			1		2			
Atherix sp.								2
Odontomyia (Odontomyiinae) sp.					1			
Stratiomys sp.							1	

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Stream Name:	Kish. R.	Kish. R.	Kish. R.	Kish. R.	Killbuck	S. Br. Kish. R.	Beaver Cr.
	Station: PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05
Summary Data	No.	No.	No.	No.	No.	No.	No.
Total Benthos	709	1514	442	875	524	824	543
Total Species	61	88	50	87	58	62	66
Total OTUs	72	101	61	104	68	74	79
MBI OTUs	61	86	40	89	63	56	67
Total MBI Benthos	520	1408	261	731	503	789	481
MBI	4.2	5.2	5.5	5.1	4.8	6.0	5.5
Taxa MBI	5.2	5.3	5.7	5.2	4.9	6.0	5.5
Mayfly OTUs	10	14	3	17	13	6	9
Caddisfly OTUs	7	15	1	8	13	6	9
Percent Mayfly	15.6	28.8	13.4	28.2	29.2	2.7	9.8
Percent Caddisfly	9.0	39.8	0.4	4.5	39.0	53.1	25.8
Percent Intolerant ( $\leq 5$ )	74.4	56.5	65.9	73.1	67.6	17.7	56.5
Percent Intolerant ( $\leq 4$ )	68.1	21.3	29.9	28.5	42.3	4.2	30.6
Percent Moderate	21.2	41.7	19.2	20.2	29	77.2	32.1
Percent Tolerant ( $> 8$ )	4.4	1.8	14.9	6.7	3.4	5.1	11.4
MBI Taxa (Genera)	43	59	33	64	46	38	48
Mayfly Taxa (genus)	7						
Caddisfly Taxa (genus)	4						
Intolerant Taxa (genus)	23						
Maximum number (MBI genera)	244	384	53	146	53	381	79
Percent Dominant (MBI genera)	46.9	27.3	20.3	20.0	10.5	48.3	16.4
Percent Chironomidae	7.3	7.7	9.2	11.5	7	18.5	15.6
Chironomidae Taxa	16		12				19
Percent Oligochaeta	3.7	0.6	13.8	2.5	2.6	0.5	8.9
Percent Coenagrionidae	0.0	2.6	9.6	2.1	1.2	16.9	1.7
Percent Mollusca	1.5	1.2	1.1	3.1	1.0	4.8	1.5
Percent Coleoptera	5.2	5.6	16.5	12.6	5.6	0.9	13.9
Percent Tanytarsini	2.12	0.99	0.77	0.68	0.80	0.76	0.42
Sample Site	PQ-07	PQ-12	PQ-13	PQ-14	PQB-03	PQC-02	PQD-05
Date	8/20/2001	8/15/2001	8/17/2001	8/23/2001	8/15/2001	8/13/2001	8/22/2001
Sample duration (hour)	1.1	1.5	1.2	1.7	1.2	1.5	1.2
Reach length (feet)	610	800	575	>800	800	800	430
Collection Method	HP	HP	HP	HP	HP	HP	HP

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

		Beaver	Piscasaw		S. Br.	N. Br.	S. Br.	E. Br. S.
	Stream Name:	Cr.	Cr.	Rush Cr.	Kish. R.	Kish. R.	Kish. R.	Br. Kish.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6	106			14	4	14	18
Oligochaeta	10	24	30	2	10	18	50	22
Erpobdella punctata	8					1		
Mooreobdella fervida	8	9						
Mooreobdella microstoma	8							1
unid. erpobdellid (imm. specimens)	8							
Placobdella papillifera	8							
Glossiphoniidae	8		1					
Caecidotea intermedius	6	10	1		6	4	2	9
Caecidotea (imm, females)	6	22	2	7	9	9		4
Gammarus pseudolimnaeus	3	40	387	776	12	152		27
Hyalella azteca	5	94			46		16	18
Cambarus diogenes	5							
Orconectes rusticus	5	4	4	9		4	1	2
Orconectes virilis	5		1			1		
Baetis flavistriga	4	26	42	2		3		3
Baetis intercalaris	7	78	3	1		1		5
Baetis (inc., EI)	4	2		1				
Callibaetis sp.	4				14			
Paracloeodes minutus	4							
Plauditus sp.	4							
Procloeon sp.	4		1					
Procloeon/Centropilum (inc.)	3							
Pseudocloeon longipalpus	4		18					
Pseudocloeon propinquum	4			8				2
unid. baetid (inc., EI)	4	1					1	2
Baetisca sp.	3							
Caenis hilaris	6							
Caenis latipennis	6			1				
Caenis punctata	6				3			
Caenis spp. (EI)	6			1	1			
Hexagenia bilineata	6				9		3	2
Hexagenia limbata	5				21	1	6	4
Hexagenia sp. (EI)	6				1			
Heptagenia diabasia	4							
Heptagenia sp.	3							
Leuctocuta sp.	3	4	2	6		2		
Stenacron interpunctatum	4	6	3	3	5	42	16	48
Stenacron sp.	4							



Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

	Stream Name:	Beaver Cr.	Piscasaw Cr.	Rush Cr.	S. Br. Kish. R. E.	N. Br. Kish. R.	S. Br. Kish. R.	E. Br. S. Br. Kish. R.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Stenonema exiguum	5	4	1			5		14
Stenonema mediopunctatum	2	1						
Stenonema pulchellum	3							4
Stenonema terminatum	4	7	1	1		10		14
Stenonema spp.	4	1		1				
unid. heptageniid (inc., EI)	3.5	1	1					
Isonychia sp.	3	36				6		
Ephoron album	2							
Anthopotamus sp.	4	2						
Tricorythodes sp.	5	5	9		1			30
Ephemeroptera (EI)	4							2
Aeshna umbrosa	4			1				
Anax junius	5				5			
Boyeria vinosa	3	2	2	3		14		
unid. aeshnid (EI)	4.5				1			
Calopteryx maculata	4	6	13	1		5		2
Calopteryx (EI)	4	1	6			1		2
Hetaerina americana	3	2				1		
Hetaerina sp. (EI)	3	1						
unid. calopterygid (EI)	3.5		11	1				3
Argia apicalis	5					2		9
Argia fumipennis	5						1	
Argia moesta	5	1						
Argia tibialis	5							
Argia sp. (inc., EI)	5	2			1	1	1	77
Enallagma antennatum/divagans (EI)	6				2			
Enallagma cyathigerum	6							
Enallagma cyathigerum/borealis	6							
Enallagma exsulans	6							
Enallagma signatum	6				1			
Enallagma spp. (inc., EI)	6	18			18		4	1
Ischnura verticalis	6							
Ischnura verticalis/posita (EI)	6				16			
Ischnura sp. (inc., EI)	6				24			1
unid. coenagrionid (EI)	5.5	5	1		30	1	1	
Gomphus externus	7							2
Gomphus cf. hybridus	7							
Gomphus sp. (EI)	7							
Ophiogomphus sp.	2							
Stylurus notatus	4.5							
Stylurus spiniceps	4.5							

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

		Beaver	Piscasaw		S. Br.			E. Br. S.
	Stream Name:	Cr.	Cr.	Rush Cr.	Kish. R.	N. Br.	S. Br.	Br. Kish.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
unid. gomphid (EI)	4.5							1
Macromia illinoiensis	4.5							
unid. macromiinae (EI)	4.5							
Platthemis lydia	3							
Pteronarcys dorsata	2							
Corydalis cornutus	3							
Chauloides rasticornis	4							
Sialis sp.	4			1	2	1	1	1
Climacea sp.	1						3	
Brachycentrus numerosus	1							
Helicopsyche borealis	2		15			2		
Cheumatopsyche sp.	6	45	27	36		92		5
Hydropsyche bidens	5		1					
Hydropsyche bronta	5	30	100	67		35		
Hydropsyche depravata complex (=betteni complex)	5		12	14		32		
Hydropsyche morosa	4		12	5				
Hydropsyche simulans	5		1					4
Hydropsyche slossonae	5		1			1		
Hydropsyche bronta/morosa (EI)	4	8	14	4				
Hydropsyche spp. (EI)	5		13			6		
Potamyia flava	4							
hydropsychid (EI)	5.5	7	2	2		6		13
Hydroptila sp.	2	8	22	10	1			2
unid. hydroptilid (pupa)	2	2			1			
Nectopsyche candida	3							
Nectopsyche diarina	3		9	3				1
Nectopsyche exquiseta	3							1
Nectopsyche sp. (EI)	3		1					
Oecetis inconspicua complex	5							
Oecetis sp. (EI)	5				1		1	
Triaenodes sp. (EI)	3		1					
unid. leptocerid (pupa)	3.5	1	4			1		1
Pycnopsyche sp.	3				1	2		
unid. limnephilid (pupa)	3.5							
Chimarra sp.	3	38				19		
unid. philopotamid (EI)	3.5	2						
Polycentropus sp.	3					3		
Nyctiophylax moestus	1							
Trichoptera (EI)	3.5							
Helichus striatus	4	1						

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Stream Name:	Beaver	Piscasaw	Rush Cr.	S. Br.	N. Br.	S. Br.	E. Br. S.
		Cr.	Cr.		Kish. R.		Kish. R.	Br. Kish.
	Station:	PQD-07	PQE-06	PQH-01	E. PQI-10	PQJ-01	PQC-13	R. PQCL-02
	Tolerance	No.	No.	No.	No.	No.	No.	No.
Ancyronyx variegatus	2							1
Dubiraphia spp.	5	20	5	3	29	5	33	83
Macronychus glabratus	2	9	2	1	11	28		65
Optioservus fastiditus	4	1	13	3				
Optioservus sp. (L)	4	6	71	30		1		
Stenelmis bicarinata	7	1						
Stenelmis crenata	7	23	17	18	2	29		
Stenelmis grossa	7	14				1	2	
Stenelmis sexlineata	7							
Stenelmis spp. (L)	7	74	15	29	3	16		2
unid. elmids (EI)	5	1	1			1		
Atrichopogon sp.	2							
Bezzia/Palpomyia sp.	6				2			
unid. genus (EI)	5			1	2			
Chaoborus punctipennis	8						5	
Ablabesmyia annulata	6				1			
Ablabesmyia mallochii	6							
Ablabesmyia monilis	6	1	1					
Cardiocladius sp.	6							
Chironomus sp.	11	3	1		14	7		3
Cladopelma sp.	6							
Cladotanytarsus sp. A	7		33	5				
Cladotanytarsus sp. B	7		3	2	1			
Cladotanytarsus sp. C	7							
Cladotanytarsus cf. daviesi	7		1	1		2		
Cladotanytarsus (pupa)	7		4					
Clinotanytus sp.	6				2	1		
Conchapelopia sp.	6			1				3
Conchapelopia genus group (EI)	6		3	1	1	5		6
Corynoneura sp.	2	1	1					
Cricotopus (C.) annulator complex	8			1				
Cricotopus (C.) bicinctus	10	2	3					
Cricotopus (C.) cf. triannualatus/infuscatus	8		1					
Cricotopus (C.) cf. vierriensis	8	1						
Cricotopus (C.) sp.	8	1		2	2			3
Cricotopus/Orthocladius	6		1	1				
Cryptochironomus sp.	8	7	12	4		1	7	9
Cryptotendipes sp.	6				2			
Dicrotendipes modestus	6							
Dicrotendipes neomodestus	6	4						

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

		Beaver	Piscasaw		S. Br.			E. Br. S.
	Stream Name:	Cr.	Cr.	Rush Cr.	Kish. R.	N. Br.	S. Br.	Br. Kish.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Dicrotendipes sp.	6	1			2			3
Endochironomus subtendens	6						1	
Epoicocladus flavens	6						1	
Eukiefferiella devonica-gr.	4	1						
Eukiefferiella similis-gr.	4	1						
Glyptotendipes sp.	10						1	
Harnischia sp.	6							
Helopelopia sp.	6							
Larsia sp.	6							
Lipinella sp.	6							
Meropelopia sp.	6	1						
Meropelopia genus gr.	6					2		
Microtendipes pedellus-gr.	6	12	24	13		1		
Nanocladius crassicornus	3							
Nanocladius crassicornus/rectinervis	3							
Nanocladius distinctus	3							
Nanocladius sp. (EI)	3							
Natarsia sp. A	6					1		
Nilotanytus fimbriatus	6					1		3
Orthocladus sp.	4	2						
Parachironomus frequens	8							
Parachironomus tenuicaudatus complex	8							
Parakiefferiella sp.	6	5			2			
Paralauterborniella nigrohalteralis	6				1			
Paratanytarsus sp.	6							3
Paratendipes albimanus-gr.	6		1					
Pentaneura inconspicua complex	3							
Phaenopsectra obediens-gr.	4	3						
Phaenopsectra punctipes-gr.	4				1			
Polypedilum convictum-gr.	6	20	12	19	1	8		6
Polypedilum fallax-gr.	6				1			15
Polypedilum halterale-gr.	4						2	3
Polypedilum illinoense-gr.	5	9	3	4	4	1	1	27
Polypedilum laetum	6							
Polypedilum scalaenum-gr.	6	1	5			4		9
Polypedilum sp.	6	2	1		1			
Procladius sp.	8				7	2	3	6
Rheocricotopus robacki	6					2		
Rheotanytarsus sp.	6	3	5			1		6
Saetheria tylus	6		1					

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

Organism	Stream Name:	Beaver	Piscasaw	Rush Cr.	S. Br.	N. Br.	S. Br.	E. Br. S.
		Cr.	Cr.		Kish. R.		Kish. R.	Br. Kish.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
	Tolerance	No.	No.	No.	No.	No.	No.	No.
Stempellinella cf. leptocelloides	6							
Stempellinella sp. A	6							
Stenochironomus sp.	3					4		
Stictochironomus sp.	5		1					
Tanytus neopunctipennis	8						1	
Tanytarsus glabrascens-gr. sp. 1	7							
Tanytarsus sp. 08D	7							
Tanytarsus sp. 13A	7							
Tanytarsus sp. 13C	7							
Tanytarsus sp. (inc., pupa)	7							
Thienemanniella xena	2							
Thienemanniella sp.	2		2			2		6
Thienemannimyia genus group (EI)	6							9
Tvetenia vitracies	6	3						
Tvetenia sp.	6							
Xenochironomus xenolabis	4							
unid. chironomini (EI, inc. spec.)	6	1				1	2	
unid. tanypodinae (inc. spec., EI)	6					4		
unid. tanytarsini (inc. spec., EI)	6							
Anopheles sp.	6				3			
unid. culicid (inc., pupa)	8							
Hemerodromia sp.	6	1	4	5				
unid. empidid (pupa)	6		4	12				
Pericoma sp.	11							
Simulium jenningsi complex	4	1						
Simulium tuberosum complex	4	3						
Simulium vittatum complex	8	1	1			1		
Simulium sp. (EI)	6	1		1				
Chrysops sp.	7	1			2			
Tabanus sp.	7					1		
Antocha sp.	5							
Hexatoma sp.	4			2				
Limonia sp.	3							
unid. tipulid (pupa)	4							
Ferrissia rivularis	7							
Ferrissia walkeri	7		3	1				
Ferrissia sp.	7	3	3					1
Fossaria sp.	7						1	
Pseudosuccinea columella	7	2						
Physella sp.	9	11	22	13	21		2	47
Gyraulus deflectus	6		1					

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

	Stream Name:	Beaver Cr.	Piscasaw Cr.	Rush Cr.	S. Br. Kish. R. E.	N. Br. Kish. R.	S. Br. Kish. R.	E. Br. S. Br. Kish. R.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
unid. planorbid (imm. specimen)	6.5						1	
(no shell)	6.5							
Amnicola limosa	4		6					1
Amnicola sp.	4	1						
Birgella subglobosa	4			15	1	7		
Pleurocera	7							
unid. unionid	1.5							
Musclium transversum	5	6				4		
Pisidium compressum	5	1				1		
Pisidium spp.	5	6						
Sphaerium striatinum	5		4		5	8		
unid. sphaeriid (inc., imm.)	5							
Hydra sp.								13
Prostoma sp.								
Plumatella								
Urnatella gracilis								
Hygrobates sp.			1					
Lebertia sp.								1
Limnesia sp.								
Sperchon sp.								
Unionicola sp.							2	
Entomobryidae								
Belostoma flumineum		2			4	1		1
Belostoma (EI)		4			2		2	1
Palmacorixa buenoi		3			2		1	
Palmacorixa gillettei		25			31		68	4
Palmacorixa nana							6	
Sigara alternata					4		2	
Sigara grossolineata					2	3	1	1
Sigara lineata								
Trichocorixa calva		1			9		59	1
Trichocorixa kanza		1					4	
corixid (EI)		87			54	5	28	18
Gerris sp.								
Metrobates sp.								
Rheumatobates sp.		1			1			
Trepobates sp.					1	1		
Mesovelgia sp.		1			1			
Ranatra fusca					1			
Neoplea striola					1			
Microvelia sp.		1		2				1

Appendix Y continued. Macroinvertebrates collected in the Kishwaukee River Basin, 2001.

	Stream Name:	Beaver Cr.	Piscasaw Cr.	Rush Cr.	S. Br. Kish. R. E.	N. Br. Kish. R.	S. Br. Kish. R.	E. Br. S. Br. Kish. R.
	Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Organism	Tolerance	No.	No.	No.	No.	No.	No.	No.
Rhagovelia sp.								
Petrophila sp.		2						
unid. lepidopteran (EI)		1						
Coptotomus lenticus							2	
Laccophilus maculosus					6		3	1
Liodessus cf. abjectus							1	2
Neoporus cf. dimidiatus								1
Neoporus cf. undulatus							6	
Neoporus sp.								
Gyrinus sp.		3				1		
Haliphus immaculicollis					1		2	
Peltodytes duodecimpunctatus							5	2
Peltodytes edentulus		3	2		5		1	1
Berosus aculeatus					7			3
Berosus peregrinus		1			3		5	
Berosus sp.							1	
Enochrus ochraceus					1			
Hygrotus sp.								
Laccobius sp.								
Paracymus subcupreous						2		1
Sperchopsis tessellata			1			4		
Tropisternus ellipticus							3	
Tropisternus glaber		1			3		8	
Tropisternus mixtus					1			
Tropisternus sp.					1			1
unid. Hydrophild								
Cyphon sp.						1	1	
Atherix sp.			6					
Odontomyia (Odontomyiinae) sp.								
Stratiomys sp.				1			1	1

Stream Name:	Beaver Cr.	Piscasaw Cr.	Rush Cr.	S. Br. Kish. R. E.	N. Br. Kish. R.	S. Br. Kish. R.	E. Br. S. Br. Kish. R.
Station:	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Summary Data	No.	No.	No.	No.	No.	No.	No.
Total Benthos	1072	1076	1158	521	659	396	731
Total Species	78	64	43	64	64	49	66
Total OTUs	102	80	55	77	75	54	79
MBI OTUs	86	76	53	55	67	31	61
Total MBI Benthos	935	1066	1155	380	641	184	677
MBI	5.5	4.4	3.8	5.8	4.7	6.7	5.2
Taxa MBI	5.2	5.3	5.3	5.6	5.2	6.0	5.3
Mayfly OTUs	14	10	10	8	8	4	12
Caddisfly OTUs	9	16	8	4	11	1	7
Percent Mayfly	18.6	7.6	2.2	14.5	10.9	14.1	19.2
Percent Caddisfly	15.1	22.0	12.2	1.1	31.0	0.5	4.0
Percent Intolerant ( $\leq 5$ )	44.0	76.6	84.5	43.4	64.6	45.1	67.9
Percent Intolerant ( $\leq 4$ )	24.4	61.9	76.0	12.9	47.7	12.5	28.2
Percent Moderate	51.7	18.1	14.2	44.8	31.5	26.1	21.5
Percent Tolerant ( $> 8$ )	4.3	5.3	1.3	11.8	3.9	28.8	10.6
MBI Taxa (Genera)	54	46	35	40	49	26	44
Mayfly Taxa (genus)							
Caddisfly Taxa (genus)							
Intolerant Taxa (genus)							
Maximum number (MBI genera)	106	387	776	46	152	50	83
Percent Dominant (MBI genera)	11.3	36.3	67.2	12.1	23.7	27.2	12.3
Percent Chironomidae	9.1	11.2	4.7	11.3	7.8	10.3	17.7
Chironomidae Taxa	15	14	6	13	15	7	
Percent Oligochaeta	2.6	2.8	0.2	2.6	2.8	27.2	3.2
Percent Coenagrionidae	2.8	0.1	0.0	24.2	0.6	3.8	13.0
Percent Mollusca	3.2	3.7	2.5	7.1	3.1	2.2	7.2
Percent Coleoptera	16.0	11.6	7.3	11.8	12.6	19.0	22.3
Percent Tanytarsini	0.32	4.32	0.69	0.26	0.47	0.00	1.33
Sample Site	PQD-07	PQE-06	PQH-01	PQI-10	PQJ-01	PQC-13	PQCL-02
Date	8/21/2001	8/22/2001	8/20/2001	8/16/2001	8/16/2001	8/23/2001	8/14/2001
Sample duration (hour)	1.2	1.3	1.1	1.0	1.3	1.1	1.2
Reach length (feet)	335	525	395	695	602	436	425
Collection Method	HP	HP	HP	HP	HP	HP	HP



**Appendix Z. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.**

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station:	PWI-01	PWNA-04	PWH-01	PWP-06	PWA-02	PWPA-01	PW-01	PW-02B	PWB-03A	PW-07A	PW-08A	PWN-03
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Dugesia tigrina	6									2			
Erpobdella punctata	8	1											
Glossiphoniidae	8												4
Mooreobdella microstoma	8	2	1				2						
Turbellaria	6												8
prob. Mooreobdella microstoma	8	3											
unid. erpobdellid	8		2	1									
Oligochaeta	10	9	7	5	47	1	80			1	1		8
Physella sp.	9	1	33	4	4	1	10						8
unknown snail	5												2
Sphaerium striatinum	5		2										
Sphaerium sp.	5						2						14
Caecidotea intermedius	6		1			6							
Caecidotea (imm, females)	6		2	2	6	7					1		
Gammarus	3												2
Gammarus pseudolimnaeus	3		1	58	6	83	70		1		3		
Hyalella azteca	5		2										
Orconectes propinquus	5	1			1		3						
Orconectes sp.	5		2			2							
unid. cambarid	5			1									
Baetis brunneicolor	4												12
Baetis flavistriga	4	25	12	4	16		8						
Baetis intercalaris	7	8			26			6	19	6	10	2	
Baetis tricaudatus	1		1	8									
Baetis (inc., EI)	4	3	4		9		4		2				
Pseudocloeon ephippiatum	4										1	1	
unid. baetid (inc., EI)	4							1	18	8	6	6	
Caenis hilaris	6									2	20	1	
Caenis latipennis	6		6										
Caenis hilaris-grp.	6							1	1	2	38		
Caenis punctata-grp.	6									1	1		

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station: Tolerance	PWI-01 No.	PWNA-04 No.	PWH-01 No.	PWP-06 No.	PWA-02 No.	PWPA-01 No.	PW-01 No.	PW-02B No.	PWB-03A No.	PW-07A No.	PW-08A No.	PWN-03 No.
Caenis sp. (EI)	6		4				1	1	5	8	161	4	
Hexagenia limbata	5					1							
Heptagenia diabasia	4			12									
prob. Heptagenia diabasia (inc.)	4			15									
Heptagenia flavescens	2								16	6	6	25	
prob. Heptagenis flavescens (inc. early instar)	2									5		7	
Heptagenia sp.	3							2	1		3		
Stenacron sp.	4												32
Stenacron interpunctatum	4	1	9	2	3	2	1	1	1				
Stenonema exiguum	5					3		8	3	7	7	10	
Stenonema integrum	4							2	2				
Stenonema terminatum	4					2			4	6		1	
Stenonema spp.	4				3	2		17	30	113	56	25	20
unid. heptageniid (inc., EI)	3.5			4	2	1		12	76	142	119	29	
Isonychia sp.	3	2	1		1			1	10	47	31	8	22
unid. leptophlebiid	2										4		
Tricorythodes sp. (EI)	5							6	34	12	159	9	58
Boyeria vinosa	3	2	1						8	12	1		
Boyeria (inc. spec.)	3					2							
Calopteryx maculata	4		2		1								
unid. calopterygid (EI)	3.5		2	1		1							
Argia sp.	5												6
Argia sp. (inc., EI)	5					2							
Acroneuria abnormis	1									1			
Neoperla sp.	1								1		1		
unid. perlodid (early instar)	2									1			
Pteronarcys dorsata	2									5	3		
Chaulioides rasticornis	4					2							
Corydalus cornutus	3								1				

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station: Tolerance	PWI-01 No.	PWNA-04 No.	PWH-01 No.	PWP-06 No.	PWA-02 No.	PWPA-01 No.	PW-01 No.	PW-02B No.	PWB-03A No.	PW-07A No.	PW-08A No.	PWN-03 No.
unid. corydalid	3									1		1	2
Sialis sp.	4												2
Brachycentrus numerosus	1					2			5	34	131	27	
Ceratopsyche	4												78
Cheumatopsyche sp.	6	26	71	9	34	11	16	44	160	535	95	79	84
Hydropsyche bidens	5							1	5	4		1	
Hydropsyche bronta	5	3	2	16	3		1						
Hydropsyche bronta/morosa (EI)	4				3		3						
Hydropsyche depravata complex	5	38	2			1	3						
Hydropsyche morosa	4	5			8								
Hydropsyche simulans	5					1		23	88	66	21	82	
Hydropsyche slossonae	5		5	12	5								
Hydropsyche spp.	5	62	5		6		1	13	97	28	8	41	
Potamyia flava	4							1	40	4	1	4	
hydrpsychid (EI)	5.5	3		1	6		1	33	1013	286	171	113	
Hydroptila sp.	2	1			2				4				4
unid. hydroptilid	2		1					1	2				
Nectopsyche sp.	3												2
Nectopsyche candida	3									2		1	
Nectopsyche diarina	3			1									
Nectopsyche sp. (EI)	3									1	1		
Pycnopsyche sp.	3			1									
Homophylax sp.	3												2
Cernotina sp.	3					7							
Cymellus fraternus	5							2					
Neureclipsis sp.	3							1			4	5	
Nyctiophylax celta	1							5					
Polycentropus sp.	3												
Ancyronyx variegata	2			1									
Dubiraphia spp. A	5												6
Dubiraphia spp.	5	3	1	2	1	11					7	1	

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station: Tolerance	PWI-01 No.	PWNA-04 No.	PWH-01 No.	PWP-06 No.	PWA-02 No.	PWPA-01 No.	PW-01 No.	PW-02B No.	PWB-03A No.	PW-07A No.	PW-08A No.	PWN-03 No.
Macronychus glabratus	2		1	1		20	1	6	5	13	21	8	
Optioservus fastiditus	4		2	2									
Optioservus sp.	4	1	5		20		11						
Stenelmis bicarinata	7										2		
Stenelmis crenata	7		13				2						
Stenelmis grossa	7										2		
Stenelmis humerosa/sinuata-gr.	7					1							
Stenelmis spp.	7	6	21	1	39		34		2	1	19		
Stenelmis ssp. (adult)	7												6
Stenelmis ssp. (larvae)	7												20
unid. elmid (EI)	5									2		1	
prob. Prionocyphon	7			2		4	3						
Atherix sp.	4		1							2			
Bezzia/Palopmyia sp.	6										1		
unid. ceratopogonid	5								1				
Ablabesmyia sp.	6												10
Brillia flavifrons	6			4									
Brillia sera	6			1									
Chironomus sp.	11				23		1						
Cladopelma sp.	6	1				2							
Cladotanytarsus sp. A	7			1									
Conchapelopia sp.	6	13		1									
Conchapelopia genus group (EI)	6	1	4	2	1	2	1						
Corynoneura sp.	2							1			8	2	8
Cricotopus (C.) bicinctus	10	2		1					5		8	2	
Cricotopus (C.) triannulatus/infuscatus	8			7	1		1						
Cricotopus (C.) trifascia	6	4											
Cricotopus (C.) sp.	8		1		1								
Cricotopus/Orthocladius	6		2										
Cryptochironomus sp.	8		1	1	1	1	1				4		6
Dicrotendipes sp.	6												2

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station: Tolerance	PWI-01 No.	PWNA-04 No.	PWH-01 No.	PWP-06 No.	PWA-02 No.	PWPA-01 No.	PW-01 No.	PW-02B No.	PWB-03A No.	PW-07A No.	PW-08A No.	PWN-03 No.
Dicrotendipes neomodestus	6		4										
Eukiefferiella ?brehmi-gr.	4	1											
Glyptotendipes sp.	10									5			
Hayesomyia senata	6										8		
Helopelopia sp.	6		37										
Limnophyes sp.	6			1									
Meropelopia	6			8						10			
Meropelopia genus gr.	6							2	10				
Microtendipes pedellus-gr.	6		17	2	5		1						
Nanocladius crassicornus/rectinervis	3									5			
Nanocladius distinctus	3											2	
Nanocladius sp. (EI)	3							2					
Nilotanytus sp.	6												2
Parakiefferiella sp.	5			2							8		
Parametriocnemus sp.	4	1		3			1			5			
Paraphaenocladius exagitans	5			1									
Paratanytarsus sp.	6		3	1									
Paratendipes albimanus-gr.	3		4										
Phaenopsecta punctipes-gr.	4		1										
Polypedilum fallax-gr.	6					1							
Polypedilum flavum	6	53	5		3			66	157	218	64	70	
Polypedilum illinoense-gr.	5		2	14	1	8	22	1					
Polypedilum scalaenum-gr.	6					1				5			
Polypedilum sp. A	6	1	1										
Polypedilum sp.	6						1						122
Procladius sp.	8					6							
Rheocricotopus robacki	6		1					4	189	77	240	48	
Rheocricotopus sp.	6												2
Rheotanytarsus sp.	6		1				1	5	76	145	8	6	8
Stenochironomus sp.	3					2							
Tanytarsus glabrascens-gr. sp. 1	7			1									

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station:	PWI-01	PWNA-04	PWH-01	PWP-06	PWA-02	PWPA-01	PW-01	PW-02B	PWB-03A	PW-07A	PW-08A	PWN-03
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Tanytarsus sp.	7												10
Tanytarsus sp. 08D	7	1											
Tanytarsus sp. 13C	7		1										
Tanytarsus sp. (inc., pupa)	7												
Thienemanniella lobapodema	2							1					
Thienemanniella xena	2							1	5	15	8	6	
Thienemanniella sp.	2								10	5	4	8	
Thienemannimyia genus gr.	6									10			
Tvetenia bavarica-gr.	5		1	2								2	
Zavreliomyia sp.	8			1									
unid. Orthoclaadiinae (inc. spec., EI)	5								20	10		2	
Hemerodromia sp.	6		1	10	4	2			13	13	14	2	
Simulium vittatum complex	8								1				
Simulium sp. (EI)	6	1			1				2	2			
unid. simuliid (EI)	6				1			1		1		1	
Chrysops sp.	7					2							
Tabanus sp.	7					1							
Antocha sp.	5	1	9	1	2								
Dicranota sp.	4			2									
Hexatoma sp.	4				2								
Tipula sp.	4												2
Nematoda	---		2	1							1		
Hygrobatas sp.	---							1					
Sperchon sp.	---										1		
Acariformes	---									1			
unid. genus	---				1								
Belostoma flumineum	---												
Palmacorixa gillettei	---			9									
Palmacorixa sp.	---	1											
Sigara trilineata	---			2									
Trichcorixa calva	---							4					

Appendix Z continued. Macroinvertebrates in the Pecatonica Basin, 2002. Samples were collected using the 20-jab method or Hester-Dendy artificial substrates.

Organism	Stream Name: Rock Run Cr. Crane Grove Cr. Summer Cr. Richland Cr. Raccoon Cr. Cedar Cr. Pecatonica R. Pecatonica R. Sugar R. Pecatonica R. Pecatonica R. Yellow Cr @ Krape Park												
	Station:	PWI-01	PWNA-04	PWH-01	PWP-06	PWA-02	PWPA-01	PW-01	PW-02B	PWB-03A	PW-07A	PW-08A	PWN-03
	Tolerance	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
unid. corixid (imm)	---	1		9	2	14	4						
Microvelia sp.	---		2										
Hydrochus rufipes	---						1						
Helocombus ? sp.	---			2									
Sperchopsis tessellata	---			2									
unid. hydrophilid	---			1									
unid. Chironomini (EI, pupa)	---							7	35	5		16	
Dixella sp.	---	2											
Stratiomys sp.	---												
Cyphon sp.													6
<b>Total Benthos</b>		290	321	233	298	204	287	272	2143	1892	1490	643	574
<b>Total MBI Benthos</b>		286	321	233	298	204	287	272	2143	1892	1490	643	574
<b>Total no. of species</b>		31	46	48	32	34	26	28	30	36	37	28	
<b>Total OTUs</b>		37	54	54	39	38	32	35	43	51	48	39	
<b>Total MBI OTUs</b>		34	52	47	37	36	30	33	42	49	46	38	33
<b>MBI</b>		5.6	6.1	4.7	6.7	4.1	6.3	5.2	5.4	5.2	4.9	4.8	5.3
<b>Taxa MBI</b>		5.7	5.3	5.4	5.5	5.3	5.9	4.3	4.5	4.6	4.7	4.4	5.2
<b>Percent Mayflies</b>		13.64	11.53	19.31	20.13	5.39	4.88	21.32	10.36	19.29	41.74	19.91	23.00
<b>Percent Caddiflies</b>		48.25	26.79	17.17	22.48	10.78	8.71	45.59	65.98	50.74	28.99	54.90	29.62
<b>Percent Intolerant</b>		52.45	25.23	71.24	31.88	75.98	45.64	40.07	22.87	29.7	41.74	48.99	47.74
<b>Percent Tolerant</b>		4.20	12.46	4.29	24.83	0.98	31.71	0.00	0.23	0.32	0.60	0.31	2.79
<b>Percent Chironomidae</b>		27.27	26.79	23.18	12.08	11.27	10.45	30.51	22.03	26.96	24.16	23.02	27.87
<b>Total MBI Taxa (genus)</b>		24	38	39	26	29	23	23	26	31	33	25	
<b>Mayfly Taxa (genus)</b>		3	4	3	4	3	3	7	7	6	8	7	
<b>Caddisfly Taxa (genus)</b>		3	3	4	3	4	2	7	5	5	6	6	
<b>Intolerant Taxa (genus)</b>		12	20	20	14	16	10	17	16	18	19	17	
<b>Collection Method</b>		20-jab	20-jab	20-jab	20-jab	20-jab	20-jab	HD	HD	HD	HD	HD	HP

**Total Acres in the Kishwaukee River Watershed: 779,747**

Susceptibility Level	Percentage	Total Source Water Area Acres
Limited	2%	19,063
Moderate	62%	11,802
Moderate	27%	5,063
High	11%	2,198

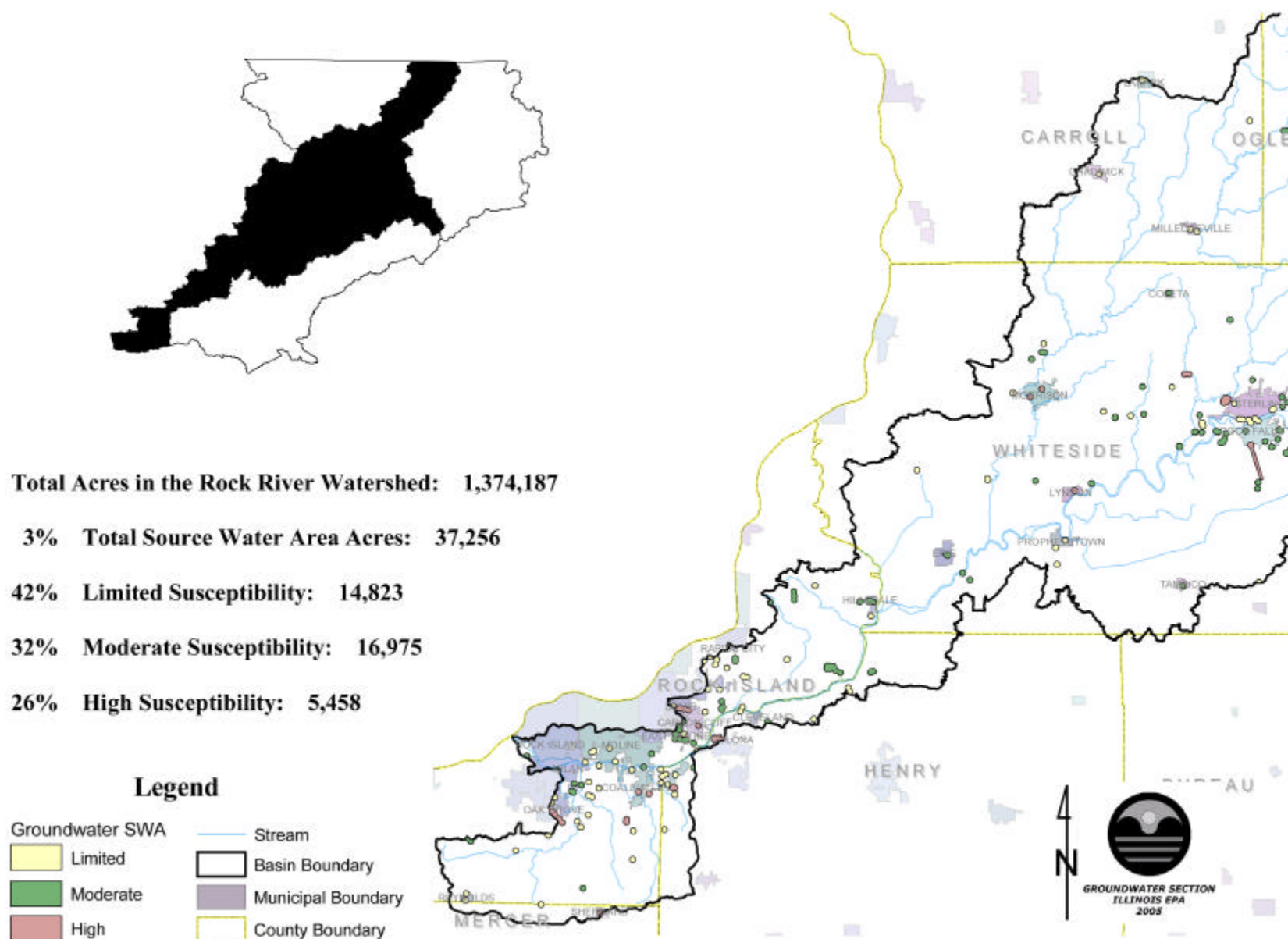
**Legend:**

- Groundwater SWA: Limited (Yellow), Moderate (Green), High (Red)
- Stream (Blue line)
- Basin Boundary (Black outline)
- Municipal Boundary (Grey outline)
- County Boundary (Thick black line)

The map displays the Kishwaukee River Watershed across several Illinois counties, including Winnebago, Boone, McHenry, Ogle, DeKalb, Kane, Lee, and Grundy. It shows the distribution of groundwater source water areas categorized by susceptibility levels: Limited (yellow), Moderate (green), and High (red). The map also includes county boundaries, municipal boundaries, and stream networks.



## Appendix AA. Groundwater Source Water Areas In The Lower Rock River Watershed



## Appendix AA. Groundwater Source Water Areas In The Upper Rock River Watershed



**Total Acres in the Rock River Watershed: 1,374,187**

**3% Total Source Water Area Acres: 37,256**

**42% Limited Susceptibility: 14,823**

**32% Moderate Susceptibility: 16,975**

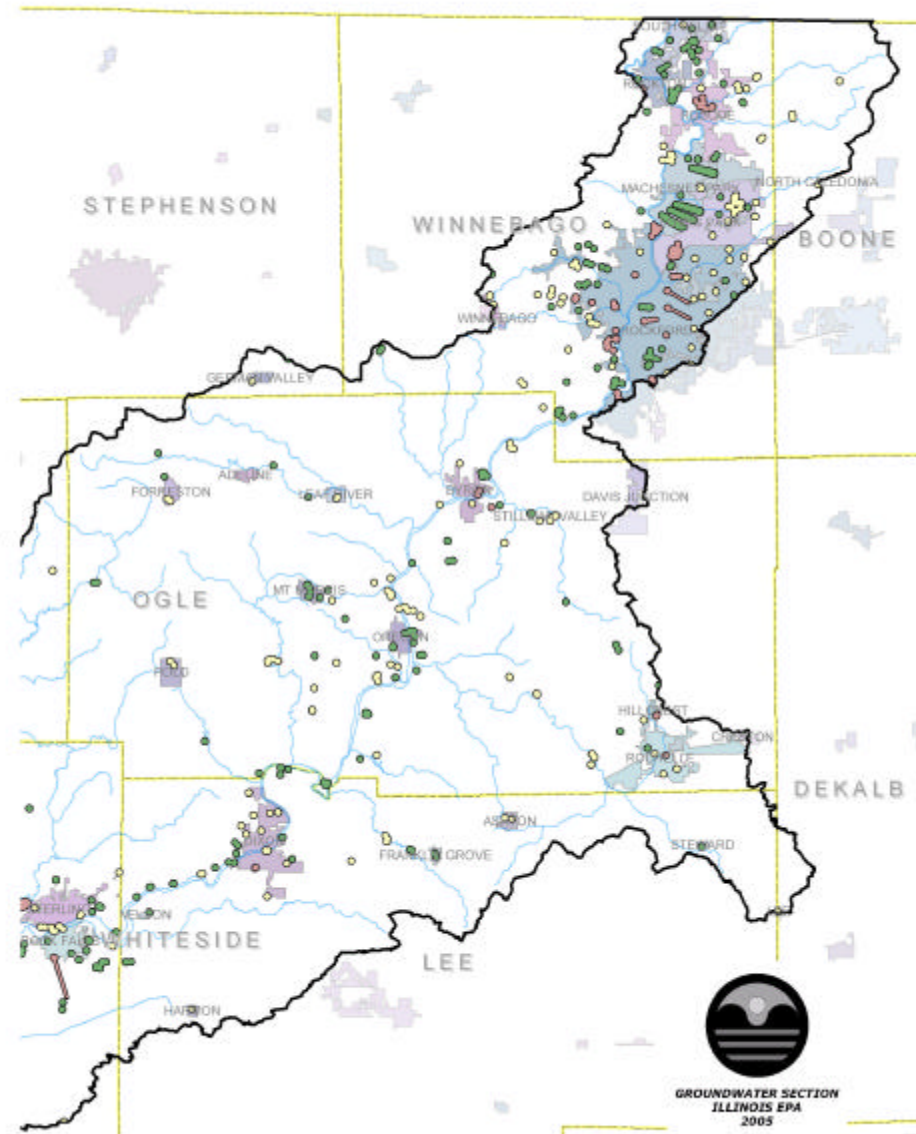
**26% High Susceptibility: 5,458**

### Legend

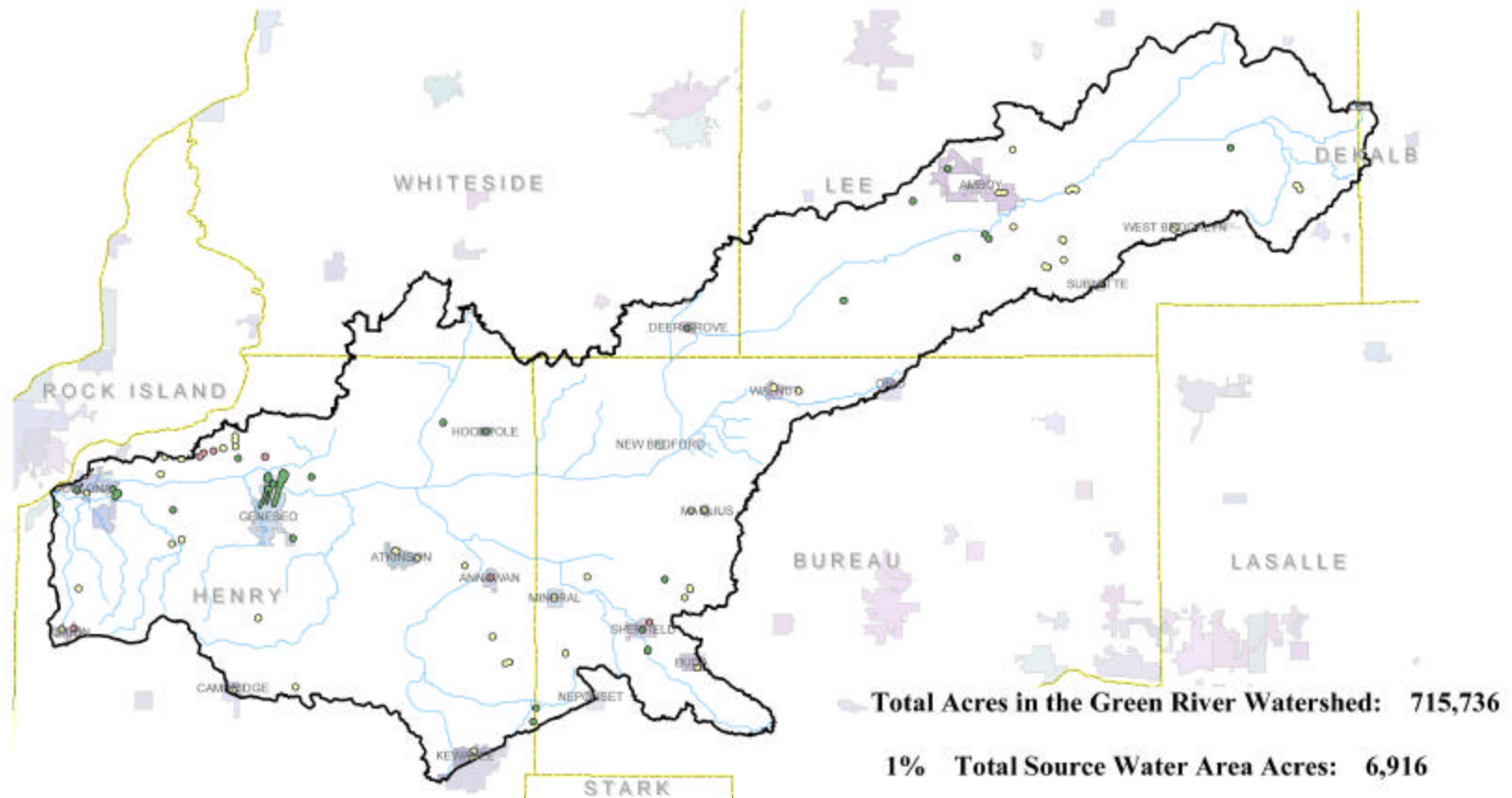
Groundwater SWA

- Limited
- Moderate
- High

- Stream
- Basin Boundary
- Municipal Boundary
- County Boundary



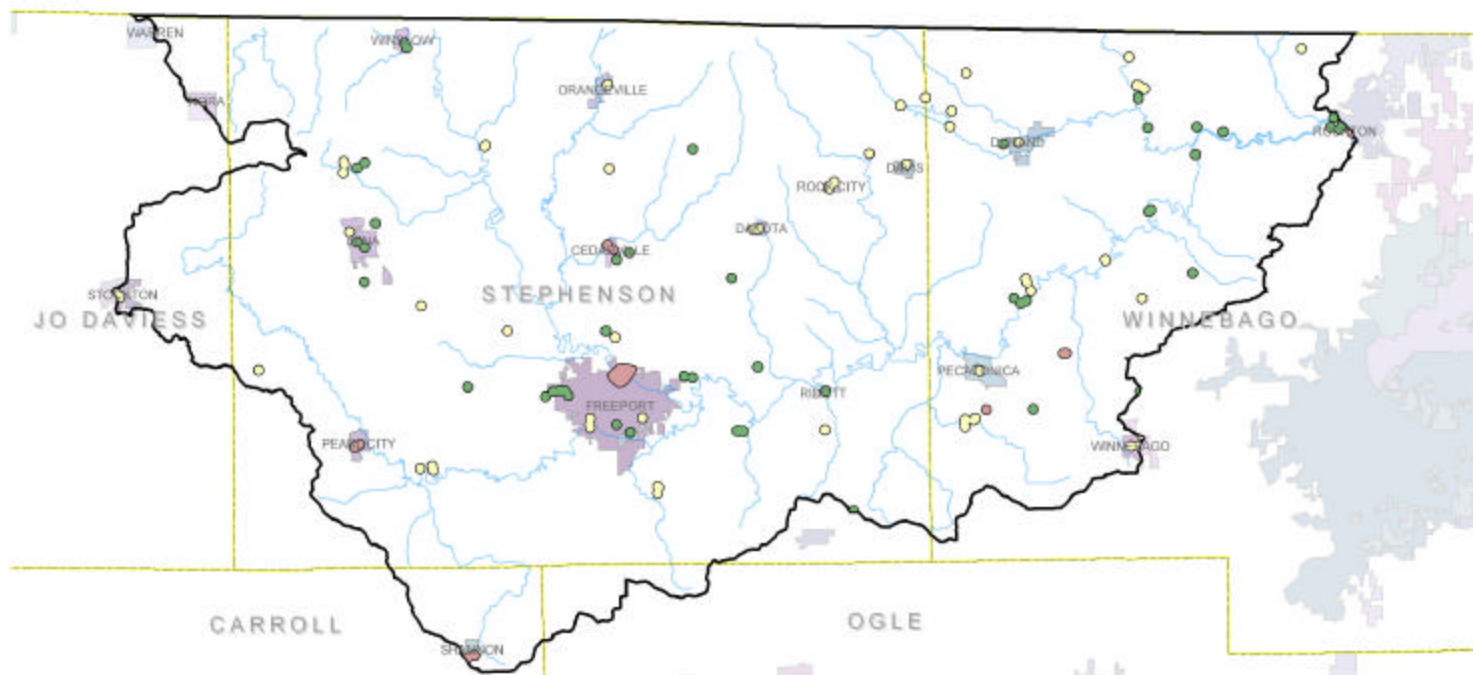
## Appendix AA. Groundwater Source Water Areas In The Green River Watershed



### Legend

Groundwater SWA	Stream
Limited	Basin Boundary
Moderate	Municipal Boundary
High	County Boundary

## Appendix AA. Groundwater Source Water Areas In The Pecatonica River Watershed



**Total Acres in the Pecatonica River Watershed: 509,675**

**2% Total Source Water Area Acres: 7,482**

**46% Limited Susceptibility: 3,420**

**40% Moderate Susceptibility: 3,033**

**14% High Susceptibility: 1,028**



### Legend

Groundwater SWA	Stream
Yellow box: Limited	Black outline: Basin Boundary
Green box: Moderate	Purple box: Municipal Boundary
Red box: High	Yellow outline: County Boundary





## Appendix BB. Ambient Network Well Data for the Rock River Basin.

County	CWS Name	CWS Number	Well ID	Well Status	Susceptibility	Aquifer	Setback	Depth	Aquifer
Boone	CONSUMERS IL WTR CANDLEWICK	0075050	11318	A	C2	C	200	100	0101
Carroll	LANARK	0150100	11707	A	C1	C	200	1082	6080
De Kalb	DE KALB	0370100	11406	A	E	C	200	1310	6687
Henry	COLONA WEST	0730550	31734	A	AX	U	400	445	5661
Henry	ORION	0730700	31803	A	D	C	200	521	5050
Henry	COUNTRY ESTS SBDV	0735050	31744	B	A2	U	400	45	5050
Henry	HAZELWOOD HEIGHTS SBDV	0735220	31755	A	F	C	200	505	5050
Henry	HAZELWOOD WEST SBDV	0735250	31758	A	B1	C	200	230	5050
Henry	KERSHAW MHP	0735345	11034	A	AX	U	400	110	5050
Henry	KERSHAW MHP	0735345	11035	A	AX	U	400	130	5050
Henry	HAZELWOOD 4TH ADDN	0735350	31752	A	F	C	200	250	5050
Henry	RIVERVIEW MHP	0735425	11042	A	A2	C	200	184	5050
Kane	HAMPSHIRE	0890450	00795	A	C5	C	200	1195	8787
Kane	HAMPSHIRE	0890450	20049	A	C5	C	200	818	6366
Lee	AMBOY	1030050	00602	A	E	C	200	1115	6687
Lee	DIXON	1030200	11557	A	A1	C	200	1870	6697
Lee	FRANKLIN GROVE	1030250	11560	A	C1	U	400	298	5050
Lee	FRANKLIN GROVE	1030250	11562	A	C1	U	400	769	6080
Lee	DIXON CORRECTIONAL CENTER	1035500	11582	A	A1	C	200	1780	8197
McHenry	HARVARD	1110250	20202	A	B2	C	200	197	0101
McHenry	UNION	1110900	00276	A	A2	C	200	760	6161
Ogle	BYRON	1410100	11778	A	A2	U	400	740	6080
Ogle	CRESTON	1410150	11782	A	C5	C	200	723	6566
Ogle	LEAF RIVER	1410300	11791	A	A1	C	200	325	6080
Ogle	ROCHELLE	1410500	11943	A	A1	C	200	888	6080
Ogle	WOODLAWN UTL CORP	1415050	11846	A	AX	C	200	345	6080
Ogle	KNOLLS EDGE SBDV	1415250	11831	A	AX	C	200	83	5050
Rock Island	SILVIS	1610700	31875	A	A2	C	200	474	5050
Rock Island	SILVIS	1610700	31873	A	A2	C	200	445	5656
Rock Island	COAL VALLEY	1614260	31853	A	C2	C	200	555	5050
Rock Island	CHERRY DALE SBDV	1615120	31881	A	E	C	200	547	5050
Rock Island	WATER WERKS	1615130	31937	A	A1	C	200	380	5050
Rock Island	FALCON FARMS	1617635	31102	A	AX	C	200	280	5050
Stephenson	CEDARVILLE	1770050	11848	A	C1	C	200	402	6366
Stephenson	DAVIS	1770150	11856	A	A5	C	200	284	6366
Stephenson	LENA	1770300	11872	A	A1	U	400	998	6387
Stephenson	ORANGEVILLE	1770350	11876	A	A1	C	200	304	6666
Stephenson	WINSLOW	1770550	11891	A	AX	C	200	355	6681
Whiteside	ERIE	1950200	11892	A	A2	U	400	567	5050
Whiteside	LYNDON	1950300	11904	A	AX	C	200	820	6365
Whiteside	LYNDON	1950300	11905	A	A3	C	200	767	5665

## Appendix BB. Ambient Network Well Data for the Rock River Basin.

County	CWS Name	CWS Number	Well ID	Well Status	Susceptibility	Aquifer	Setback	Depth	Aquifer
Whiteside	MORRISON	1950350	11910	A	E	C	200	1768	6080
Whiteside	PROPHETSTOWN	1950400	11914	A	A2	C	200	176	0101
Winnebago	CHERRY VALLEY	2010050	00133	A	C1	C	200	1201	6080
Winnebago	ROCKFORD	2010300	11629	A	C5	U	400	295	0101
Winnebago	ROCKFORD	2010300	11636	A	C2	U	400	237	0101
Winnebago	ROCKFORD	2010300	11649	A	A1	C	200	1205	6697
Winnebago	ROCKFORD	2010300	11621	A	AX	U	400	1600	6397
Winnebago	ROCKFORD	2010300	11640	A	A2	C	200	1457	6090
Winnebago	WINNEBAGO	2010500	11669	A	C1	C	200	835	6587
Winnebago	BRADLEY HTS SBDV	2015050	11674	A	D	C	200	130	0101
Winnebago	UTL INC COVENTRY CREEK SBDV	2015160	11678	A	A5	C	200	530	6666
Winnebago	ANNS MHP	2015225	11122	A	B2	C	200	150	0101
Winnebago	BILL-MAR HTS MHP	2015345	11128	A	A5	U	400	245	6080
Winnebago	GEM SUBURBAN MHP	2015495	11136	A	A2	U	400	87	0101
Winnebago	NORTH PARK PWD	2015500	11693	A	A2	U	400	240	0101
Winnebago	RIVERVIEW MHP	2015655	11150	I	AX	U	400	90	0101

**Appendix CC. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.**

								IEPA
								Basin
Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	Code
ADKINS ENERGY-LENA	IL0076210	INDUSTRIAL	MINOR	00000.1400	ROCKFORD	STEPHENSON	UNNAMED TRIB OF YELLOW CREEK	PWN
ADVANCED HEAT TREATING-LOVES PARK	IL0077046	INDUSTRIAL	MINOR	00000.0079	DES PLAINES	WINNEBAGO	ROCK RIVER	P
AIRVIEW MOBILE HOME PARK	IL0052825	MISCELLANEOUS	MINOR	00000.0320	PEORIA	ROCK ISLAND	UNNAMED TRIB TO CASE CREEK	PZA
ALLEN BARRY LIVESTOCK-LEAF RIVER	IL0067229	AGRICULTURAL	MINOR		ROCKFORD	OGLE	TRIB TO WILL CREEK	PO
ALLIED LOCKE INDUSTRIES, INC.	IL0063070	INDUSTRIAL	MINOR	00000.0110	ROCKFORD	LEE	TRIB TO GREEN RIVER	PB
AMBOY STP	IL0027472	MUNICIPALITY	MINOR	00000.5000	ROCKFORD	LEE	GREEN RIVER	PB
AMEROCK CORPORATION	IL0003344	INDUSTRIAL	MINOR	00000.4280	ROCKFORD	WINNEBAGO	NORTH BRANCH KENT CREEK	PS
AMOCO-ROCHELLE	IL0003336	INDUSTRIAL	MINOR	00000.0010	ROCKFORD	OGLE	FEEDER STREAM	PL
ANNAWAN STP	ILG580012	MUNICIPALITY	MINOR	00000.1600	PEORIA	HENRY	MUD CREEK EAST-GREEN RIVER	PBJ
AQUA ILLINOIS-WOODHAVEN	IL0045543	SEMI-PUBLIC	MINOR	00000.1000	ROCKFORD	LEE	UNNAMED TRIB OF GREEN RIVER	PB
ASHTON WWTP	ILG582015	MUNICIPALITY	MINOR	00000.3300	ROCKFORD	LEE	BEACH CREEK-KYTE CREEK-ROCK RIVER	PLB
ATKINSON STP	ILG580018	MUNICIPALITY	MINOR	00000.1600	PEORIA	HENRY	GREEN RIVER	PB
AUBREY MANUFACTURING, INC.	IL0038121	INDUSTRIAL	MINOR	00000.0128	DES PLAINES	MCHENRY	TRIB TO KISHWAUKEE RIVER	PQC
BARBER-COLMAN COMPANY-LOVES PARK	IL0003468	INDUSTRIAL	MINOR	00000.1980	ROCKFORD	WINNEBAGO	LOVES PARK CREEK TRIB TO ROCK RIVER	P
BARNES INTERNATIONAL	ILG250077	INDUSTRIAL	MINOR	00000.0100	ROCKFORD	WINNEBAGO	KENT CREEK	PS
BELVIDERE STP	IL0027685	MUNICIPALITY	MAJOR	00005.8000	ROCKFORD	BOONE	KISHWAUKEE RIVER TO ROCK RIVER	PQ
BERNER FOODS-ROCK CITY	IL0053058	INDUSTRIAL	MINOR	00000.2000	ROCKFORD	STEPHENSON	ROCK RUN CREEK	PWI
BUCKEYE TERMINALS LLC-ROCKFORD	IL0068403	INDUSTRIAL	MINOR	00000.0300	ROCKFORD	WINNEBAGO	DRAINAGE DITCH TRIB TO KENT CREEK	PS
BUDA STP	IL0072494	MUNICIPALITY	MINOR	00000.0660	ROCKFORD	BUREAU	BUDA CREEK	PBJABA
BURLINGTON WTP	IL0066583	PUBLIC WATER SUPPLY	MINOR	00000.0009	DES PLAINES	KANE	STORM SEWER-TRIB OF BURLINGTON CREEK	PQFC
BVR TECHNOLOGIES COMPANY	IL0074349	INDUSTRIAL	MINOR	00000.0002	ROCKFORD	WINNEBAGO	UNNAMED TRIB TO KISHWAUKEE RIVER	PQ
BYRON STP	IL0027804	MUNICIPALITY	MINOR	00000.5730	ROCKFORD	OGLE	ROCK RIVER	P
CADBURY ADAMS USA LLC-ROCKFORD	IL0003689	INDUSTRIAL	MINOR	00002.3430	ROCKFORD	WINNEBAGO	ROCK RIVER VIA DRAINAGE DITCH	P
CAPRON WWTP	IL0027855	MUNICIPALITY	MINOR	00000.1500	ROCKFORD	BOONE	UNNAMED TRIB TO BEAVER CREEK	PQD
CATHOLIC DIOCESES OF ROCKFORD	IL0071811	INDUSTRIAL	MINOR	00000.0250	ROCKFORD	WINNEBAGO	MANNING CREEK	PQ
CEDARVILLE STP	ILG580136	MUNICIPALITY	MINOR	00000.1000	ROCKFORD	STEPHENSON	CEDAR CREEK	PWPA
CEMEX-DIXON	ILG840104	MINE/QUARRY	MINOR	00000.8000	ROCKFORD	LEE	TRIB TO ROCK RIVER	P
CEMEX-DIXON	IL0003514	MINE/QUARRY	MINOR	00000.8000	ROCKFORD	LEE	ROCK RIVER	P
CENTRAL HIGH SCHOOL DIST #301	ILG551044	MISCELLANEOUS	MINOR	00000.0500	DES PLAINES	KANE	KISHWAUKEE RIVER	PQCG
CHADWICK STP	ILG580063	MUNICIPALITY	MINOR	00000.2000	ROCKFORD	CARROLL	ROCK CREEK	PE
CIVIL CONSTRUCTORS-DWYER QUARRY	ILG840081	MINE/QUARRY	MINOR	00000.7920	ROCKFORD	STEPHENSON	YELLOW CREEK	PWN
CLARK JL MFG CO-ROCKFORD	IL0059498	INDUSTRIAL	MINOR	00000.0508	ROCKFORD	WINNEBAGO	STORM SEWER	P
COLLINSON STONE QUARRY	IL0026620	MINE/QUARRY	MINOR		PEORIA	ROCK ISLAND	MILL CREEK	PO

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
COLONA - GREEN ROCK STP	IL0059757	MUNICIPALITY	MAJOR	00001.0000	PEORIA	HENRY	GREEN RIVER	PB
CONSUMERS IL WATER-CANDLEWICK	IL0045527	SEMI-PUBLIC	MINOR	00000.5000	ROCKFORD	BOONE	BEAVER CREEK	PQD
CONSUMERS IL WATER-WOODHAVEN	IL0045535	PUBLIC WATER SUPPLY	MINOR		ROCKFORD	LEE	UNNAMED TRIB TO GREEN RIVER	PB
DAKOTA STP	IL0028304	MUNICIPALITY	MINOR	00000.1000	ROCKFORD	STEPHENSON	WINNESHIEK CK-PECATONICA R-ROCK R	PWL
DANA CORP-WARNER ELECTRIC GWS	IL0068632	INDUSTRIAL	MINOR	00000.4104	ROCKFORD	WINNEBAGO	UNNAMED TRIB TO ROCK RIVER	P
DASCO PRODUCTS INC-ROCKFORD	ILG250154	INDUSTRIAL	MINOR	00000.0030	ROCKFORD	WINNEBAGO	ROCK RIVER	P
DASCO PRODUCTS-BLACKHAWK PLANT	IL0071544	INDUSTRIAL	MINOR	00000.0030	ROCKFORD	WINNEBAGO	STORM SEWER TRIB TO ROCK RIVER	P
DAVIS JUNCTION STP	IL0071064	MUNICIPALITY	MINOR	00000.1500	ROCKFORD	OGLE	KILLBUCK CREEK	PQB
DAVIS STP	IL0053228	MUNICIPALITY	MINOR	00000.0750	ROCKFORD	STEPHENSON	ROCK RUN CREEK	PWI
DEAN FOODS COMPANY-HARVARD	IL0003395	INDUSTRIAL	MINOR	00000.1660	DES PLAINES	MCHENRY	PISCASAW CREEK	PQE
DEAN FOODS-BELVIDERE	IL0003387	INDUSTRIAL	MINOR	00000.0130	ROCKFORD	BOONE	KISHWAUKEE RIVER	PQ
DEAN FOODS-DIXON	IL0062910	INDUSTRIAL	MINOR	00000.5830	ROCKFORD	LEE	STORM SEWER TRIB TO ROCK RIVER	P
DEAN FOODS-HUNTLEY	IL0003409	INDUSTRIAL	MINOR	00000.0001	DES PLAINES	MCHENRY	SOUTH BRANCH OF KISHWAUKEE RIVER	PQI
DEAN ILLINOIS DAIRIES-ROCKFORD	IL0003841	INDUSTRIAL	MINOR	00000.2040	ROCKFORD	WINNEBAGO	NORTH BRANCH OF KENT CREEK	PS
DEAN SPECIALTY FOODS-PECATONICA	IL0034908	INDUSTRIAL	MINOR	00000.1620	ROCKFORD	WINNEBAGO	PECATONICA RIVER	PW
DEKALB COUNTY PACKING COMPANY	IL0049832	INDUSTRIAL	MINOR	00000.0130	ROCKFORD	DE KALB	UNNAMED TRIB TO KISHWAUKEE RIVER	PQCL
DEKALB S.D. STP	IL0023027	MUNICIPALITY	MAJOR	00008.6300	ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
DEL MONTE FOODS-ROCHELLE	IL0003417	INDUSTRIAL	MINOR	00000.9999	ROCKFORD	OGLE	KYTE RIVER VIA MCADAMS LATERAL	PL
DIXON CORRECTIONAL CENTER	IL0024724	STATE	MAJOR	00001.0000	ROCKFORD	LEE	ROCK RIVER	P
DIXON STP	IL0026450	MUNICIPALITY	MAJOR	00004.5000	ROCKFORD	LEE	ROCK RIVER	P
DURA AUTOMOTIVE SYSTEMS	IL0003751	INDUSTRIAL	MINOR	00000.0860	ROCKFORD	JO DAVIESS	UNNAMED TRIB TO YELLOW CREEK	PWN
DURAND SD STP	IL0028525	MUNICIPALITY	MINOR	00000.1900	ROCKFORD	WINNEBAGO	NORTH BRANCH OF OTTER CREEK	PWBA
EAGLE CREEK QUARRIES-SWORD 2	ILG840008	MINE/QUARRY	MINOR		ROCKFORD	CARROLL	WEST FORK TO ELKHORN CREEK	PHJ
EISENHOWER MIDDLE SCHOOL	IL0066729	MISCELLANEOUS	MINOR	00000.0119	ROCKFORD	WINNEBAGO	SPRING CREEK (TO ROCK RIVER)	PZZG
EKLUND METAL TREATING-LOVES PARK	IL0003280	INDUSTRIAL	MINOR	00000.0100	ROCKFORD	WINNEBAGO	ROCK RIVER	P
ELCO INDUSTRIES INC.	IL0054879	INDUSTRIAL	MINOR	00000.0480	ROCKFORD	WINNEBAGO	UNNAMED TRIB TO KISHWAUKEE RIVER	P
ELLWOOD GREEN UTILITY CORP	IL0037036	SEMI-PUBLIC	MINOR	00000.0700	ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
EMERSON QUARRY	IL0020702	MINE/QUARRY	MINOR		ROCKFORD	WHITESIDE	ELKHORN CREEK	PH
ENGINEERED STORAGE PRODUCTS	IL0038377	INDUSTRIAL	MINOR	00000.1750	ROCKFORD	DE KALB	UNNAMED TRIB TO KISHWAUKEE	PQ
ERIE STP	IL0020303	MUNICIPALITY	MINOR	00000.1900	ROCKFORD	WHITESIDE	ROCK RIVER	P
EVERGREEN VILLAGE MHP	IL0036811	MISCELLANEOUS	MINOR	00000.0200	ROCKFORD	DE KALB	E. BRANCH OF SOUTH BRANCH OF KISHWAUKEE R.	PQCL
EXELON GENERATION CO LLC-BYRON	IL0048313	POWER PLANT	MAJOR	00016.5700	ROCKFORD	OGLE	WOODLAND CREEK	P



Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
FALCON FARMS MHP-PORT BYRON	ILG551071	MISCELLANEOUS	MINOR	00000.0550	PEORIA	ROCK ISLAND	UNNAMED TRIB TO ZUMA CREEK	PZD
FISCHER MATERIALS-INLET QUARRY	IL0034665	MINE/QUARRY	MINOR	00000.7200	ROCKFORD	LEE	GREEN RIVER	PB
FORMER BELOIT CORP-BLACKHAWK	IL0064564	INDUSTRIAL	MINOR	00000.2460	ROCKFORD	WINNEBAGO	ROCK RIVER	P
FORRESTON STP	IL0022721	MUNICIPALITY	MINOR	00000.2300	ROCKFORD	OGLE	UNNAMED TRIB TO LEAF RIVER	PN
FRANKLIN GROVE STP	IL0026522	MUNICIPALITY	MINOR	00000.1600	ROCKFORD	LEE	FRANKLIN CREEK	PK
FRANTZ MFG-STERLING BEARING	IL0061859	INDUSTRIAL	MINOR	00000.0019	ROCKFORD	WHITESIDE	UNNAMED TRIB TO ROCK RIVER	P
FRANTZ MFG-STERLING STEEL BALL	IL0059889	INDUSTRIAL	MINOR	00000.0070	ROCKFORD	WHITESIDE	UNNAMED TRIB TO ROCK RIVER	P
FREEPORT WWTF	IL0023591	MUNICIPALITY	MAJOR	00006.7500	ROCKFORD	STEPHENSON	PECATONICA RIVER-ROCK RIVER	PW
GENERAL MILLS INC-BELVIDERE	IL0003450	INDUSTRIAL	MINOR	00000.0970	ROCKFORD	BOONE	KISHWAUKEE RIVER	PQ
GENESEO STP	IL0021814	MUNICIPALITY	MAJOR	00001.5000	PEORIA	HENRY	GENESEO CREEK-GREEN RIVER	PBE
GENOA STP	IL0055182	MUNICIPALITY	MINOR	00000.7800	ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
GERMAN VALLEY STP	IL0024821	MUNICIPALITY	MINOR	00000.0800	ROCKFORD	STEPHENSON	UNNAMED TRIB OF MUD CREEK	PNA
GILT EDGE FARMS INC	IL0048909	AGRICULTURAL	MINOR		ROCKFORD	STEPHENSON	PECATONICA RIVER	PW
GLEASON CUTTING TOOLS CORP	IL0060151	INDUSTRIAL	MINOR	00000.0570	ROCKFORD	WINNEBAGO	UNNAMED DITCH TRIB TO ROCK RIVER	P
GOODYEAR TIRE & RUBBER COMPANY	IL0003204	INDUSTRIAL	MINOR	00003.0480	ROCKFORD	STEPHENSON	SILVER CREEK	PWM
GREEN ACRES MHP	IL0042269	MISCELLANEOUS	MINOR	00000.0270	ROCKFORD	LEE	ROCK RIVER	P
GREEN RIVER INDUSTRIAL PARK	IL0048003	MISCELLANEOUS	MINOR	00000.0840	ROCKFORD	LEE	UNNAMED TRIB TO GREEN RIVER	PBSA
GUNITE CORPORATION-ROCKFORD	IL0068284	INDUSTRIAL	MINOR	00000.0220	ROCKFORD	WINNEBAGO	ROCK RIVER VIA STORM SEWER	P
HAMPSHIRE STP	IL0020281	MUNICIPALITY	MINOR	00000.7500	DES PLAINES	KANE	COON-KISHWAUKEE-ROCK	PQF
HARVARD STP	IL0020117	MUNICIPALITY	MAJOR	00001.5000	DES PLAINES	MCHENRY	MOKELER-PISCASAW-KISHWAUKEE RIVER	PQEA
HILLCREST HOME	ILG551003	MISCELLANEOUS	MINOR	00000.0230	PEORIA	HENRY	SPRING CREEK TO GREEN RIVER	PBI
HILLSDALE SD STP	ILG580009	MUNICIPALITY	MINOR	00000.0650	PEORIA	ROCK ISLAND	MEREDOSIA SLOUGH-ROCK RIVER	PD
HUNTLEY EAST WWTF	IL0029238	MUNICIPALITY	MAJOR	00001.2000	DES PLAINES	MCHENRY	SOUTH BRANCH OF KISHWAUKEE RIVER	PQIA
HUNTLEY WEST STP	IL0070688	MUNICIPALITY	MAJOR	00001.6000	DES PLAINES	MCHENRY	SOUTH BRANCH OF KISHWAUKEE RIVER	PQ
HYPONEX CORP-ANDERSON-ORGANIC	ILG840018	MINE/QUARRY	MINOR		ROCKFORD	WHITESIDE	ROCK RUN	PEF
IL DNR-LAKE LE-AQUA-NA STATE PARK	IL0054062	STATE	MINOR	00000.0031	ROCKFORD	STEPHENSON	UNNAMED TRIB TO WADDAMS CREEK	PWQ
IL DNR-MORRISON ROCKWOOD STATE PARK	IL0070831	STATE	MINOR	00000.0033	ROCKFORD	WHITESIDE	UNNAMED TRIB TO LAKE CARLTON	PE
IL DNR-WHITE PINES FOREST STATE PARK	IL0053911	STATE	MINOR	00000.0250	ROCKFORD	OGLE	UNNAMED DITCH TRIB TO PINE CREEK	PJ
IL DNR-LOWDEN MEMORIAL STATE PARK	IL0066273	STATE	MINOR	00000.0015	ROCKFORD	OGLE	ROCK RIVER	P
IL-AMERICAN WATER-STERLING WTP	IL0037788	PUBLIC WATER SUPPLY	MINOR	00000.1000	ROCKFORD	WHITESIDE	ELKHORN CREEK	PH
INDIAN COVE SUBDIVISION STP	IL0055344	SEMI-PUBLIC	MINOR	00000.0330	ROCKFORD	OGLE	ROCK RIVER	P
INGERSOLL PROD-ROCKFORD EDDY PLANT	IL0074462	INDUSTRIAL	MINOR	00000.0095	ROCKFORD	WINNEBAGO	ROCK RIVER VIA STORM SEWER	P

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
KEARNEY-NATIONAL INC	IL0066893	INDUSTRIAL	MINOR	00000.0072	DES PLAINES	MCHENRY	SOUTH BRANCH OF KISHWAUKEE RIVER	PQIA
KENT FEEDS, INC.-ROCKFORD	IL0069922	INDUSTRIAL	MINOR	00000.0002	ROCKFORD	WINNEBAGO	UNNAMED DITCH TRIB TO KISHWAUKEE R	PQ
KIRKLAND NORTH STP	IL0064092	MUNICIPALITY	MINOR	00000.3100	ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
KISHWAUKEE COLLEGE	IL0023833	MISCELLANEOUS	MINOR	00000.0300	ROCKFORD	DE KALB	KILBUCK CREEK	PQBA
KONE-COAL VALLEY ESCALATOR	IL0054810	INDUSTRIAL	MINOR	00000.0200	PEORIA	ROCK ISLAND	MOSQUITO CREEK-GREEN RIVER-ROCK RIVER	PBA
LAKEWOOD STP	IL0045446	MUNICIPALITY	MINOR	00000.3180	DES PLAINES	MCHENRY	KISHWAUKEE RIVER	PQ
LANARK SOUTH STP	IL0062499	MUNICIPALITY	MINOR	00000.3400	ROCKFORD	CARROLL	ROCK CREEK TRIB TO ROCK RIVER	PE
LANDIS GARDNER	IL0061948	INDUSTRIAL	MINOR	00000.4350	ROCKFORD	WINNEBAGO	TURTLE CREEK	PX
LARSON, M.S.J INC.	IL0003786	MINE/QUARRY	MINOR	00001.7000	ROCKFORD	DE KALB	E BRANCH OF SOUTH BRANCH OF KISHWAUKEE R.	PQCL
LAWRENCE HARDWARE-ROCK FALLS	IL0062979	INDUSTRIAL	MINOR	00000.0530	ROCKFORD	WHITESIDE	UNION DR DITCH TRIB TO ROCK RIVER	PZQ
LEAF RIVER STP	IL0029475	MUNICIPALITY	MINOR	00000.0540	ROCKFORD	OGLE	LEAF RIVER	PN
LEE AND SONS, INC.-LEE QUARRY	ILG840079	MINE/QUARRY	MINOR		ROCKFORD	DE KALB	UNNAMED TRIB OF TRIMBLE RUN CREEK	PQCA
LENA STP	IL0024945	MUNICIPALITY	MINOR	00000.6000	ROCKFORD	STEPHENSON	UNNAMED TRIB-YELLOW CK-PECATONICA RVR	PWN
LINCOLNLAND FARMS	IL0067059	AGRICULTURAL	MINOR		ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
LSP-NELSON ENERGY GENERATION	IL0074209	POWER PLANT	MINOR	00003.0040	ROCKFORD	LEE	UNNAMED TRIB TO THREE MILE BRANCH CREEK	PZR
MACKLIN INC.-ASHTON QUARRY	ILG840013	MINE/QUARRY	MINOR		ROCKFORD	OGLE	KYTE RIVER	PL
MACKLIN INC.-FAIRDALE QUARRY	ILG840020	MINE/QUARRY	MINOR		ROCKFORD	OGLE	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
MACKLIN INC.-ROCHELLE QUARRY	ILG840019	MINE/QUARRY	MINOR		ROCKFORD	OGLE	KYTE RIVER	PL
MACKLIN INC.-STONERIDGE QUARRY	ILG840014	MINE/QUARRY	MINOR		ROCKFORD	OGLE	GREEN RIVER	PB
MALTA STP	ILG580030	MUNICIPALITY	MINOR	00000.1800	ROCKFORD	DE KALB	KILLBUCK CREEK	PQB
MANLIUS WTP	IL0051241	PUBLIC WATER SUPPLY	MINOR		ROCKFORD	BUREAU	HICKORY CREEK	PBJAB
MAPLE PARK STP	ILG580261	MUNICIPALITY	MINOR	00000.2500	ROCKFORD	KANE	UNION DITCH #2	PQCL
MARATHON ASHLAND PETROLEUM, LLC	IL0062782	INDUSTRIAL	MINOR	00000.0360	ROCKFORD	WINNEBAGO	SOUTH FORK KENT CREEK	PSA
MARENGO STP	IL0020729	MUNICIPALITY	MINOR	00000.9000	DES PLAINES	MCHENRY	KISHWAUKEE RIVER	PQ
MCCLEARY INDUSTRIES	IL0067903	INDUSTRIAL	MINOR	00000.0050	ROCKFORD	WINNEBAGO	ROCK RIVER	P
MEYER MATERIAL COMPANY-HARVARD	IL0070360	MINE/QUARRY	MINOR		DES PLAINES	MCHENRY	LAWRENCE CREEK	PQEC
MEYER MATERIAL-BELVIDERE PIT	ILG840035	MINE/QUARRY	MINOR		ROCKFORD	BOONE	KISHWAUKEE RIVER	PQ
MILAN STP	IL0020214	MUNICIPALITY	MAJOR	00001.7000	PEORIA	ROCK ISLAND	ROCK RIVER	P
MILLEDGEVILLE STP	IL0023345	MUNICIPALITY	MINOR	00000.2000	ROCKFORD	CARROLL	ELKHORN CREEK TO ROCK RIVER	PH
MODERN METAL PRODUCTS-ROCKFORD	ILG250061	INDUSTRIAL	MINOR	00000.0300	ROCKFORD	WINNEBAGO	ROCK RIVER VIA STORM SEWER	P
MOLINE CONSUMERS COMPANY	IL0063037	MINE/QUARRY	MINOR	00000.9600	PEORIA	ROCK ISLAND	ZUMA CREEK	PZD
MOLINE SOUTH STP	IL0029939	MUNICIPALITY	MAJOR	00009.0000	PEORIA	ROCK ISLAND	ROCK RIVER	P

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
MONROE CENTER UTILITY ASSOC	ILG551049	SEMI-PUBLIC	MINOR	00000.0500	ROCKFORD	OGLE	KILBUCK CREEK	PQB
MORRISON STP	IL0027006	MUNICIPALITY	MINOR	00000.9410	ROCKFORD	WHITESIDE	ROCK CREEK	PE
MT. MORRIS STP	IL0030031	MUNICIPALITY	MINOR	00000.5000	ROCKFORD	OGLE	MOUNT MORRIS CREEK NORTH	PJBC
NEW LANDING UTILITY, INC. STP	IL0026590	SEMI-PUBLIC	MINOR	00000.1000	ROCKFORD	OGLE	CLEAR CREEK	PZU
NORTHERN HILLS UTILITY STP	IL0036030	SEMI-PUBLIC	MINOR	00000.0600	ROCKFORD	STEPHENSON	UNNAMED STREAM TRIB TO PECATONICA R.	PW
NORTHERN ILLINOIS UNIVERSITY-TAFT	IL0025836	STATE	MINOR	00000.0140	ROCKFORD	OGLE	UNNAMED TRIB TO ROCK RIVER	P
OAKLAWN MOBILE HOME PARK	ILG551047	MISCELLANEOUS	MINOR	00000.0500	ROCKFORD	BOONE	BEAVER CREEK TO KISHWAUKEE RIVER	PQD
OAKWOOD COUNTRY CLUB STP	IL0052957	MISCELLANEOUS	MINOR	00000.0120	PEORIA	HENRY	UNNAMED TRIB TO ROCK RIVER	P
ORANGEVILLE WWTP	ILG580248	MUNICIPALITY	MINOR	00000.2000	ROCKFORD	STEPHENSON	RICHLAND CREEK-PECATONICA R.-ROCK R.	PWP
OREGON STP	IL0020184	MUNICIPALITY	MINOR	00000.6260	ROCKFORD	OGLE	ROCK RIVER	P
ORION WWTP	IL0024988	MUNICIPALITY	MINOR	00000.4000	PEORIA	HENRY	MOSQUITO CREEK-GREEN RIVER	PBA
OTTER CREEK LAKE UTILITY STP	IL0048593	SEMI-PUBLIC	MINOR	00000.4000	ROCKFORD	WINNEBAGO	SOUTH BRANCH OF OTTER CREEK	PWBA
PARADISE MANOR MHP	IL0053295	MISCELLANEOUS	MINOR	00000.0210	PEORIA	ROCK ISLAND	UNNAMED TRIB OF CASE CREEK	PZA
PEARL CITY STP	ILG580218	MUNICIPALITY	MINOR	00000.0750	ROCKFORD	STEPHENSON	YELLOW CREEK	PWN
PECATONICA WWTP	IL0030571	MUNICIPALITY	MINOR	00000.5000	ROCKFORD	WINNEBAGO	PECATONICA RIVER	PW
PETERS JW INC-ROCHELLE	IL0067261	INDUSTRIAL	MINOR	00000.0110	ROCKFORD	OGLE	STORM SEWER TO KYTE CREEK	PL
PIERCE CHEMICAL COMPANY	IL0003191	INDUSTRIAL	MINOR	00000.3030	ROCKFORD	WINNEBAGO	UNNAMED TRIB TO NORTH FORK KENT CK	PSB
PINNACLE COUNTRY CLUB	IL0024503	MISCELLANEOUS	MINOR	00000.0151	PEORIA	ROCK ISLAND	MILL CREEK TRIB TO ROCK RIVER	PA
POLO STP	IL0030449	MUNICIPALITY	MINOR	00000.5000	ROCKFORD	OGLE	BUFFALO CREEK	PHE
POPLAR GROVE NORTH WWTP	IL0023451	MUNICIPALITY	MINOR	00000.2500	ROCKFORD	BOONE	BEAVER CREEK	PQD
POPLAR GROVE SOUTH WWTP	IL0071447	MUNICIPALITY	MINOR	00000.2500	ROCKFORD	BOONE	BEAVER CREEK	PQD
PROGRESSIVE STEEL TREATING	ILG250067	INDUSTRIAL	MINOR	00000.0072	ROCKFORD	WINNEBAGO	ROCK RIVER	P
PROGRESSIVE STEEL-LOVES PARK	IL0046566	INDUSTRIAL	MINOR	00000.0900	ROCKFORD	WINNEBAGO	ROCK RIVER	P
PROPHETSTOWN STP	IL0043061	MUNICIPALITY	MINOR	00000.2600	ROCKFORD	WHITESIDE	ROCK RIVER	P
QUALITY METAL FINISHING-BYRON	IL0003581	INDUSTRIAL	MINOR	00000.2550	ROCKFORD	OGLE	ROCK RIVER	P
QUEBECOR WORLD-MT. MORRIS	IL0003972	INDUSTRIAL	MINOR	00000.5300	ROCKFORD	OGLE	UNNAMED TRIB TO PINE CREEK	PJ
R.E. COX CONSTRUCTION-TESSENDO	ILG840043	MINE/QUARRY	MINOR		ROCKFORD	STEPHENSON	WADDAMS CREEK	PWQ
REYNOLDS STP	ILG580225	MUNICIPALITY	MINOR	00000.0800	PEORIA	ROCK ISLAND	UNNAMED TRIB TO MILL CK TO ROCK RIVER	PA
RIVER ROAD CAMPING AND MARINA	IL0061000	MISCELLANEOUS	MINOR	00000.0037	ROCKFORD	OGLE	UNNAMED STREAM TRIB TO ROCK RIVER	P
RIVER ROAD MHP	ILG551061	MISCELLANEOUS	MINOR	00000.0378	ROCKFORD	STEPHENSON	WINNESHIEK CREEK	PWL
RIVERDALE COMMUNITY SCHOOL DIST#100	IL0052591	MISCELLANEOUS	MINOR	00000.0150	PEORIA	ROCK ISLAND	UNNAMED TRIB TO CANOE CREEK	PZG
RIVERSIDE MOBILE HOME ESTATES	IL0033235	MISCELLANEOUS	MINOR	00000.0270	ROCKFORD	WHITESIDE	ROCK RIVER	P

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
RIVERSTONE GROUP INC-ALLIED	ILG840047	MINE/QUARRY	MINOR		PEORIA	ROCK ISLAND	ROCK RIVER	P
RIVERSTONE GROUP-INC-CLEVELAND	IL0003557	MINE/QUARRY	MINOR		PEORIA	HENRY	UNNAMED TRIB TO ROCK RIVER	P
ROCHELLE FOODS, INC.	IL0003638	INDUSTRIAL	MINOR	00000.1300	ROCKFORD	OGLE	KYTE RIVER VIA STORM SEWER	PL
ROCHELLE WATER RECLAMATION WWTP	IL0030741	MUNICIPALITY	MAJOR	00004.8700	ROCKFORD	OGLE	KYTE RIVER-ROCK RIVER	PL
ROCK FALLS STP	IL0026514	MUNICIPALITY	MAJOR	00002.6550	ROCKFORD	WHITESIDE	ROCK RIVER	P
ROCK ISLAND SW STP	IL0036382	MUNICIPALITY	MAJOR	00001.5000	PEORIA	ROCK ISLAND	MILL CREEK	PO
ROCK RIVER ESTATES	IL0052582	MISCELLANEOUS	MINOR	00000.0378	ROCKFORD	LEE	ROCK RIVER	P
ROCK RIVER WRD	IL0027201	MUNICIPALITY	MAJOR	00040.0000	ROCKFORD	WINNEBAGO	ROCK RIVER	P
ROCKFORD BLACKTOP-OREGON	ILG840023	MINE/QUARRY	MINOR		ROCKFORD	OGLE	ROCK RIVER	P
ROCKFORD BLACKTOP-FARM 110	IL0071919	MINE/QUARRY	MINOR		ROCKFORD	WINNEBAGO	PECATONICA RIVER	PW
ROCKFORD BOLT&STEEL-ROCKFORD	ILG250073	INDUSTRIAL	MINOR	00000.0097	ROCKFORD	WINNEBAGO	ROCK RIVER	PS
ROCKFORD MEMORIAL HOSPITAL	IL0073580	INDUSTRIAL	MINOR	00000.0700	ROCKFORD	WINNEBAGO	ROCK RIVER VIA STORM SEWER	P
ROCKFORD POWERTRAIN, INC	IL0066265	INDUSTRIAL	MINOR	00000.0610	ROCKFORD	WINNEBAGO	DRAINAGE DITCH TRIB TO ROCK RIVER	P
ROCKFORD PRODUCTS CORPORATION	IL0067989	INDUSTRIAL	MINOR	00000.3200	ROCKFORD	WINNEBAGO	ROCK RIVER	P
ROCKFORD PRODUCTS-PLANT #2	IL0059714	INDUSTRIAL	MINOR	00000.0680	ROCKFORD	WINNEBAGO	ROCK RIVER VIA STORM SEWER	P
ROCKFORD SAND AND GRAVEL	IL0068098	MINE/QUARRY	MINOR		ROCKFORD	WINNEBAGO	TRIB TO MADIGAN CREEK	PQK
ROCKFORD SAND AND GRAVEL-IRENE	IL0067741	MINE/QUARRY	MINOR		ROCKFORD	BOONE	UNNAMED TRIB TO SOUTH BR KISHWAUKEE R.	PQ
ROCKFORD SAND AND GRAVEL-NIMTZ	IL0060399	MINE/QUARRY	MINOR	00002.6000	ROCKFORD	WINNEBAGO	UNNAMED TRIB OF ROCK RIVER	P
ROCKFORD SAND AND GRAVEL-PORTER	IL0071927	MINE/QUARRY	MINOR	00000.0200	ROCKFORD	WINNEBAGO	MCDONALD CREEK	PZZK
ROCKFORD SAND AND GRAVEL-BLACKS 127	ILG840012	MINE/QUARRY	MINOR	00000.0500	ROCKFORD	WINNEBAGO	PECATONICA RIVER	PW
ROCKFORD SAND&GRAVEL-JOHNS 141	ILG840082	MINE/QUARRY	MINOR	00000.4000	ROCKFORD	WINNEBAGO	UNNAMED CREEK TRIB TO N FORK KENT CK	PSB
ROCKFORD SAND&GRAVEL-SANDY HOLLOW	ILG840086	MINE/QUARRY	MINOR	00000.7000	ROCKFORD	WINNEBAGO	UNNAMED CREEK TO UNNAMED POND	P
ROCKTON STP	IL0030791	MUNICIPALITY	MINOR	00000.6500	ROCKFORD	WINNEBAGO	ROCK RIVER	P
ROLLING MEADOWS MHP-DAVIS JUNCTION	ILG551040	MISCELLANEOUS	MINOR	00000.0190	ROCKFORD	OGLE	KILBUCK CREEK	PQB
SAFETY KLEEN-PECATONICA	IL0072290	INDUSTRIAL	MINOR		ROCKFORD	WINNEBAGO	UNNAMED DITCH TO PECATONICA RIVER	PW
SAUK VALLEY COMMUNITY COLLEGE	IL0047520	MISCELLANEOUS	MINOR	00000.0375	ROCKFORD	LEE	ROCK RIVER	P
SCHLICHTING AND SONS	IL0071251	MINE/QUARRY	MINOR	00000.7000	ROCKFORD	WINNEBAGO	BEAVER CREEK	PQD
SEWARD SD	ILG580138	MUNICIPALITY	MINOR	00000.0640	ROCKFORD	WINNEBAGO	MILL CREEK	PO
SHANGRI LA MHP	ILG551057	MISCELLANEOUS	MINOR	00000.0366	ROCKFORD	OGLE	KYTE RIVER	PL
SHANNON STP	ILG580021	MUNICIPALITY	MINOR	00000.1800	ROCKFORD	CARROLL	LOST CREEK	PWNB
SHEFFIELD STP	ILG580255	MUNICIPALITY	MINOR	00000.1320	ROCKFORD	BUREAU	COAL CREEK	PBJA
SHERRARD JUNIOR-SENIOR HS	IL0062952	MISCELLANEOUS	MINOR	00000.0235	PEORIA	MERCER	UNNAMED TRIB OF MILL CREEK	PA

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	IEPA
								Basin Code
SONOCO PRODUCTS CO-ROCKTON	IL0037583	INDUSTRIAL	MINOR	00000.0900	ROCKFORD	WINNEBAGO	ROCK RIVER	P
SOUTH BELOIT STP	IL0021156	MUNICIPALITY	MAJOR	00003.0000	ROCKFORD	WINNEBAGO	ROCK RIVER	P
SPECTRUM PREFERRED MEATS	IL0071862	INDUSTRIAL	MINOR	00000.0400	ROCKFORD	OGLE	UNNAMED DITCH TRIB TO PINE CREEK	PJ
STATE STREET MANAGEMENT-ROCKFORD	ILG250051	INDUSTRIAL	MINOR	00000.1300	ROCKFORD	WINNEBAGO	ROCK RIVER	P
STEPHENSON MOBILE HOME PARK	ILG551062	MISCELLANEOUS	MINOR	00000.0240	ROCKFORD	STEPHENSON	UNNAMED TRIB TO PRESTON CREEK	PWD
STERLING STEEL CO LLC-STERLING	IL0003794	INDUSTRIAL	MAJOR	00002.8900	ROCKFORD	WHITESIDE	ROCK RIVER	P
STERLING-ELKHORN CREEK STP	IL0060569	MUNICIPALITY	MAJOR	00003.6000	ROCKFORD	WHITESIDE	ROCK RIVER	P
STILLMAN VALLEY STP	IL0031275	MUNICIPALITY	MINOR	00000.2000	ROCKFORD	OGLE	STILLMAN CREEK-ROCK R.	PP
SUNTEC INDUSTRIES, INC.	IL0067580	INDUSTRIAL	MINOR	00000.0454	ROCKFORD	WINNEBAGO	CONCRETE FLUME TRIB TO ROCK RIVER	P
SYCAMORE NORTH STP	IL0031291	MUNICIPALITY	MAJOR	00002.9700	ROCKFORD	DE KALB	E. BRANCH OF SOUTH BRANCH OF KISHWAUKEE R.	PQCL
TAMPICO STP	IL0022381	MUNICIPALITY	MINOR	00000.1600	ROCKFORD	WHITESIDE	COUNTY DITCH #2	PFC
TECHALLOY COMPANY, INC.	IL0070408	INDUSTRIAL	MINOR	00000.8820	DES PLAINES	MCHENRY	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
TESTOR CORPORATION-ROCKFORD	IL0069817	INDUSTRIAL	MINOR	00000.0273	ROCKFORD	WINNEBAGO	STORM SEWER TRIB TO ROCK RIVER	P
TESTOR CORPORATION-ROCKFORD	IL0070513	INDUSTRIAL	MINOR	00000.0190	ROCKFORD	WINNEBAGO	STORM SEWER TRIB TO KEITH CREEK	PR
TEXTRON INC-CAMCAR TAPTITE DIV	IL0074021	INDUSTRIAL	MINOR	00000.1750	ROCKFORD	BOONE	STORM SEWER TRIB TO KISHWAUKEE RIVER	PQ
TIMBER RIDGE MHP-FREEPORT	ILG551013	MISCELLANEOUS	MINOR	00000.0120	ROCKFORD	STEPHENSON	UNNAMED TRIB TO CRANES GROVE CREEK	PWNA
TORKELSON CHEESE COMPANY-LENA	IL0026735	INDUSTRIAL	MINOR	00000.0400	ROCKFORD	STEPHENSON	WADDAMS CREEK	PWQ
TOTE CART COMPANY	IL0067911	INDUSTRIAL	MINOR	00000.0012	ROCKFORD	WINNEBAGO	KENT CREEK SOUTH	PS
TRI COUNTY QUARRIES-PALMYRA	IL0068837	MINE/QUARRY	MINOR		ROCKFORD	LEE	SUGAR CREEK	PHB
TYSON FRESH MEATS-JOSLIN	IL0003913	INDUSTRIAL	MAJOR	00003.1700	PEORIA	ROCK ISLAND	ROCK RIVER	P
U.S. ECOLOGY, INC.-SHEFFIELD	IL0066176	INDUSTRIAL	MINOR	00000.0250	ROCKFORD	BUREAU	UNNAMED TRIB TO LAWSON CREEK	PBJE
UNIMIN CORP-OREGON PLANT	IL0066761	MINE/QUARRY	MINOR		ROCKFORD	OGLE	TRIB TO ROCK RIVER	PZV
UNION SPECIAL CORPORATION	IL0003662	INDUSTRIAL	MINOR	00000.1814	DES PLAINES	MCHENRY	KISHWAUKEE RIVER VIA STORM SEWER	PQI
US CHROME CORP OF ILLINOIS	IL0003808	INDUSTRIAL	MAJOR	00000.0008	ROCKFORD	BOONE	MOSQUITO CREEK VIA TILE DRAIN SYSTEM	PQFA
VIENNA BEEF LTD-CHICAGO	IL0034070	INDUSTRIAL	MINOR	00000.0070	DES PLAINES	MCHENRY	UNNAMED TRIB OF LAWRENCE CREEK	PQEC
VULCAN MATERIALS CO-SYCAMORE	IL0068110	MINE/QUARRY	MINOR		ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
WALCAMP OUTDOOR MINISTRIES,INC	IL0023841	MISCELLANEOUS	MINOR	00000.0130	ROCKFORD	DE KALB	SOUTH BRANCH OF KISHWAUKEE RIVER	PQC
WALNUT STP	IL0031615	MUNICIPALITY	MINOR	00000.2150	ROCKFORD	BUREAU	WALNUT CREEK	PBQ
WESTLAKE VILLAGE STP	ILG551070	SEMI-PUBLIC	MINOR	00000.2500	ROCKFORD	WINNEBAGO	COOLIDGE CREEK	PWF
WILLOW CREEK REST AREA STP-139	IL0069833	STATE	MINOR	00000.0115	ROCKFORD	LEE	UNNAMED CREEK TO WILLOW CREEK	PBU
WINNEBAGO WWTP	IL0020672	MUNICIPALITY	MINOR	00000.4000	ROCKFORD	WINNEBAGO	COOLIDGE CREEK	PWF
WINSLOW STP	IL0048259	MUNICIPALITY	MINOR	00000.0470	ROCKFORD	STEPHENSON	PECATONICA RIVER	PW

Appendix CC continued. NPDES permitted dischargers in the Illinois portion of the Rock River Basin.

								IEPA
								Basin
Facility Name	NPDES #	Facility Type	Class	DAF in MGD	Region	County	Permitted Receiving Waters	Code
WOODLAND MHP STP	IL0026671	MISCELLANEOUS	MINOR	00000.0500	PEORIA	ROCK ISLAND	UNNAMED TRIB TO MILL CREEK	PA
WOODLAWN UTILITIES CORP STP	ILG551067	SEMI-PUBLIC	MINOR	00000.0560	ROCKFORD	OGLE	KYTE CREEK	PL
WOODSTOCK SOUTH STP	IL0034282	MUNICIPALITY	MAJOR	00001.7500	DES PLAINES	MCHENRY	KISHWAUKEE RIVER	PQ
WOODWARD GOVERNOR COMPANY	IL0002976	INDUSTRIAL	MINOR	00000.2170	ROCKFORD	WINNEBAGO	ROCK RIVER VIA UNNAMED TRIB	P
WOODWARD GOVERNOR COMPANY	IL0066508	INDUSTRIAL	MINOR	00000.2950	ROCKFORD	WINNEBAGO	STORM SEWER TRIB TO ROCK RIVER	P
ZENITH CUTTER COMPANY-ROCKFORD	IL0068161	INDUSTRIAL	MINOR	00000.0446	ROCKFORD	WINNEBAGO	WILLOW CREEK TRIB TO ROCK RIVER	PZZI

**Appendix DD. Permitted Sludge Application and Generation in the Rock River Basin.**

Facility/ City	Permitted <sup>1</sup> Tons	Ag Generated Applied <sup>2</sup>		Landfilled Tons - 2004
		Tons - 2004	Tons - 2004	
Belvidere	1700	361	361	
Colona	120	140	132	
Crystal Lake PI 1&2	800	651	558	
Cystal Lake PI 3	50	173	164	
Dakota	15	3	3	
Dekalb	750	482	482	
Dixon	750	466	0	466
East Moline	0	610	0	610
Freeport	825	538	538	
Geneseo	100	97	94	
German Valley	70			
Harvard	150	98	98	
Huntley	400			
Kewanee	400	363	228	
Lake in the Hills	1000	827	758	
Lakewood	89	14	75	
Lena	80	23	23	
Marengo	200	107	107	
Moline- North	0	3760	0	3760
Moline- South	900	340	335	
Morrison	22	51	51	
Ohio	200	0	0	
Pecatonica	100	28	28	
Rock Falls	400	96	96	
Rock Island- Mill St	1250	309	268	41
Rock Island- SW	0	74		74
Rock River Water Reclamation District		3969	2677	0
Rockton	140	64	64	
South Beloit	200	67	67	
Sterling	?/0	130		130
Stockton	50	60	66	
Sycamore- North	275	303	407	
Sycamore- SW	0	25	5	
Walnut	35	35	17	
Warren	100	44	44	
Woodstock- North	550	329	394	
Woodstock- South	100	140	169	

All units are dry tons per year.

1. Tons permitted for land application.

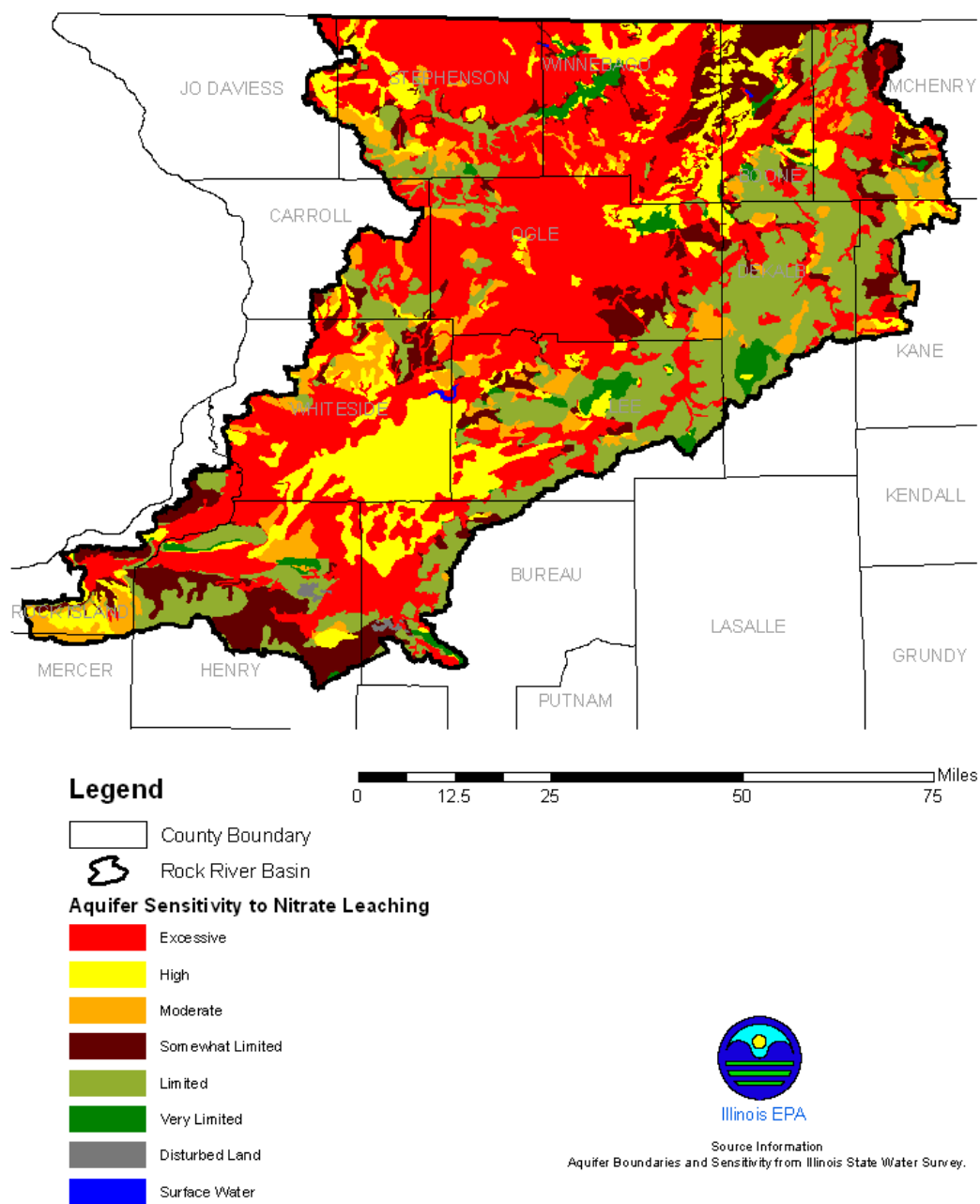
2. Applied Tons- sludge applied to agriculture lands

## **Appendix EE. Spray Irrigation Permits in the Rock River Basin.**

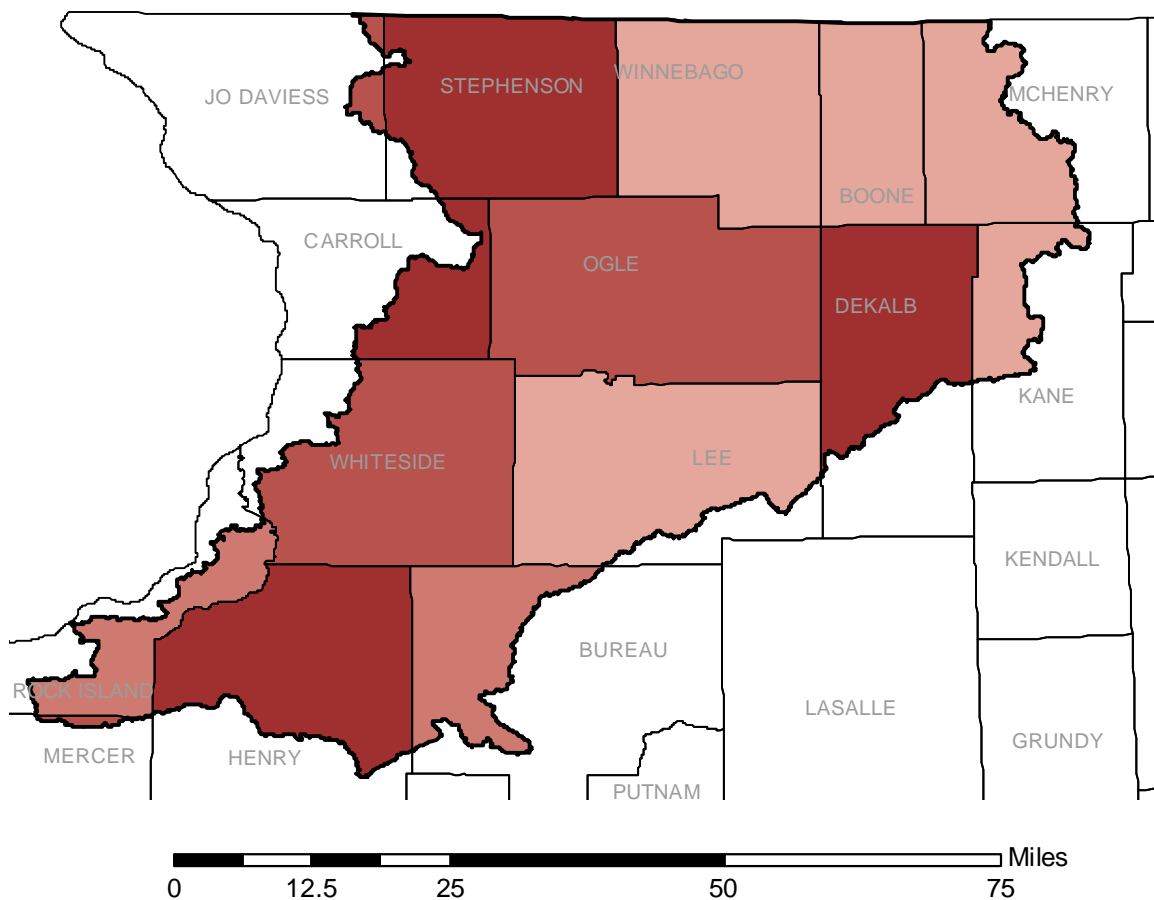
<b>Permittee</b>	<b>Address</b>	<b>City</b>	<b>Original Permit Issued</b>	<b>DAF</b>
Blackstone Gold Course Subdivision	22318 Stella Dr.	Marengo	6/18/2004	0.037
McHenry County Board	2200 North Seminary Ave.	Woodstock	10/26/1995	0.035
Pingree Grove	14N042	Hampshire	11/4/2004	1.000
Wasco Sanitary District	PO Box 9	Wasco	6/18/1993	0.316
Wyndhaven Home Owners Association	PO Box 311	Crystal Lake	7/9/1993	0.050
Sheaffer International (Courtland)	800 Roosevelt Rd. Suite B214	Glen Ellyn	6/30/2005	0.300




## Appendix FF. Potential For Nitrate Leaching in the Rock River Basin.



## Appendix GG. Livestock Density in the Rock River Basin.




 County Boundary

 Rock River Basin

### Livestock Density


#### Animals per Square Mile

 Less than 50

 50 - 100

 100 - 150

 150 - 200

 More Than 200



Illinois EPA

Source Information  
Watershed Boundaries from Illinois State Water Survey  
Livestock Density from IDOA

## Appendix HH. Livestock numbers for counties in the Rock River Basin.

County	Animal Type	# of Farms/Animals	% of Illinois Total
Boone	Cattle and calves inventory (farms)	141	0.71%
Boone	Cattle and calves inventory (number)	8,771	0.65%
Boone	Cattle and calves inventory - Beef cows (farms)	67	0.45%
Boone	Cattle and calves inventory - Beef cows (number)	1,076	0.25%
Boone	Cattle and calves inventory - Milk cows (farms)	38	2.29%
Boone	Cattle and calves inventory - Milk cows (number)	3,031	2.66%
Boone	Hogs and pigs inventory (farms)	43	1.09%
Boone	Hogs and pigs inventory (number)	13,245	0.32%
Bureau	Cattle and calves inventory (farms)	210	1.05%
Bureau	Cattle and calves inventory (number)	14,725	1.08%
Bureau	Cattle and calves inventory - Beef cows (farms)	137	0.93%
Bureau	Cattle and calves inventory - Beef cows (number)	3,717	0.88%
Bureau	Cattle and calves inventory - Milk cows (farms)	14	0.84%
Bureau	Cattle and calves inventory - Milk cows (number)	581	0.51%
Bureau	Hogs and pigs inventory (farms)	65	1.65%
Bureau	Hogs and pigs inventory (number)	73,831	1.80%
Carroll	Cattle and calves inventory (farms)	242	1.21%
Carroll	Cattle and calves inventory (number)	41,774	3.07%
Carroll	Cattle and calves inventory - Beef cows (farms)	123	0.83%
Carroll	Cattle and calves inventory - Beef cows (number)	6,099	1.44%
Carroll	Cattle and calves inventory - Milk cows (farms)	40	2.41%
Carroll	Cattle and calves inventory - Milk cows (number)	3,366	2.95%
Carroll	Hogs and pigs inventory (farms)	45	1.15%
Carroll	Hogs and pigs inventory (number)	40,986	1.00%
DeKalb	Cattle and calves inventory (farms)	144	0.72%
DeKalb	Cattle and calves inventory (number)	31,151	2.29%
DeKalb	Cattle and calves inventory - Beef cows (farms)	61	0.41%
DeKalb	Cattle and calves inventory - Beef cows (number)	981	0.23%
DeKalb	Cattle and calves inventory - Milk cows (farms)	14	0.84%
DeKalb	Cattle and calves inventory - Milk cows (number)	1,174	1.03%
DeKalb	Hogs and pigs inventory (farms)	92	2.34%
DeKalb	Hogs and pigs inventory (number)	201,681	4.93%
Henry	Cattle and calves inventory (farms)	382	1.92%
Henry	Cattle and calves inventory (number)	39,537	2.91%
Henry	Cattle and calves inventory - Beef cows (farms)	257	1.74%
Henry	Cattle and calves inventory - Beef cows (number)	(D)	(D)
Henry	Cattle and calves inventory - Milk cows (farms)	3	0.18%
Henry	Cattle and calves inventory - Milk cows (number)	(D)	(D)
Henry	Hogs and pigs inventory (farms)	181	4.61%
Henry	Hogs and pigs inventory (number)	177,798	4.34%

## Appendix HH. Livestock numbers for counties in the Rock River Basin.

County	Animal Type	# of Farms/Animals	% of Illinois Total
Jo Daviess	Cattle and calves inventory (farms)	488	2.45%
Jo Daviess	Cattle and calves inventory (number)	57,254	4.21%
Jo Daviess	Cattle and calves inventory - Beef cows (farms)	336	2.28%
Jo Daviess	Cattle and calves inventory - Beef cows (number)	16,471	3.90%
Jo Daviess	Cattle and calves inventory - Milk cows (farms)	108	6.51%
Jo Daviess	Cattle and calves inventory - Milk cows (number)	7,771	6.81%
Jo Daviess	Hogs and pigs inventory (farms)	55	1.40%
Jo Daviess	Hogs and pigs inventory (number)	18,983	0.46%
Kane	Cattle and calves inventory (farms)	96	0.48%
Kane	Cattle and calves inventory (number)	9,539	0.70%
Kane	Cattle and calves inventory - Beef cows (farms)	45	0.30%
Kane	Cattle and calves inventory - Beef cows (number)	650	0.15%
Kane	Cattle and calves inventory - Milk cows (farms)	17	1.03%
Kane	Cattle and calves inventory - Milk cows (number)	1,268	1.11%
Kane	Hogs and pigs inventory (farms)	22	0.56%
Kane	Hogs and pigs inventory (number)	28,047	0.68%
Lee	Cattle and calves inventory (farms)	142	0.71%
Lee	Cattle and calves inventory (number)	13,232	0.97%
Lee	Cattle and calves inventory - Beef cows (farms)	82	0.56%
Lee	Cattle and calves inventory - Beef cows (number)	1,941	0.46%
Lee	Cattle and calves inventory - Milk cows (farms)	6	0.36%
Lee	Cattle and calves inventory - Milk cows (number)	258	0.23%
Lee	Hogs and pigs inventory (farms)	61	1.55%
Lee	Hogs and pigs inventory (number)	55,414	1.35%
McHenry	Cattle and calves inventory (farms)	229	1.15%
McHenry	Cattle and calves inventory (number)	18,497	1.36%
McHenry	Cattle and calves inventory - Beef cows (farms)	98	0.66%
McHenry	Cattle and calves inventory - Beef cows (number)	2,095	0.50%
McHenry	Cattle and calves inventory - Milk cows (farms)	78	4.70%
McHenry	Cattle and calves inventory - Milk cows (number)	4,739	4.15%
McHenry	Hogs and pigs inventory (farms)	46	1.17%
McHenry	Hogs and pigs inventory (number)	21,634	0.53%
Mercer	Cattle and calves inventory (farms)	249	1.25%
Mercer	Cattle and calves inventory (number)	15,259	1.12%
Mercer	Cattle and calves inventory - Beef cows (farms)	202	1.37%
Mercer	Cattle and calves inventory - Beef cows (number)	6,671	1.58%
Mercer	Cattle and calves inventory - Milk cows (farms)	9	0.54%
Mercer	Cattle and calves inventory - Milk cows (number)	44	0.04%
Mercer	Hogs and pigs inventory (farms)	71	1.81%
Mercer	Hogs and pigs inventory (number)	63,545	1.55%

## Appendix HH. Livestock numbers for counties in the Rock River Basin.

County	Animal Type	# of Farms/Animals	% of Illinois Total
Ogle	Cattle and calves inventory (farms)	356	1.79%
Ogle	Cattle and calves inventory (number)	34,543	2.54%
Ogle	Cattle and calves inventory - Beef cows (farms)	215	1.46%
Ogle	Cattle and calves inventory - Beef cows (number)	7,284	1.72%
Ogle	Cattle and calves inventory - Milk cows (farms)	26	1.57%
Ogle	Cattle and calves inventory - Milk cows (number)	1,526	1.34%
Ogle	Hogs and pigs inventory (farms)	76	1.93%
Ogle	Hogs and pigs inventory (number)	52,162	1.27%
Rock Island	Cattle and calves inventory (farms)	195	0.98%
Rock Island	Cattle and calves inventory (number)	10,619	0.78%
Rock Island	Cattle and calves inventory - Beef cows (farms)	154	1.04%
Rock Island	Cattle and calves inventory - Beef cows (number)	4,442	1.05%
Rock Island	Cattle and calves inventory - Milk cows (farms)	11	0.66%
Rock Island	Cattle and calves inventory - Milk cows (number)	402	0.35%
Rock Island	Hogs and pigs inventory (farms)	33	0.84%
Rock Island	Hogs and pigs inventory (number)	30,976	0.76%
Stephenson	Cattle and calves inventory (farms)	502	2.52%
Stephenson	Cattle and calves inventory (number)	49,008	3.61%
Stephenson	Cattle and calves inventory - Beef cows (farms)	218	1.48%
Stephenson	Cattle and calves inventory - Beef cows (number)	5,853	1.38%
Stephenson	Cattle and calves inventory - Milk cows (farms)	164	9.89%
Stephenson	Cattle and calves inventory - Milk cows (number)	13,079	11.46%
Stephenson	Hogs and pigs inventory (farms)	70	1.78%
Stephenson	Hogs and pigs inventory (number)	85,769	2.09%
Whiteside	Cattle and calves inventory (farms)	266	1.33%
Whiteside	Cattle and calves inventory (number)	35,550	2.62%
Whiteside	Cattle and calves inventory - Beef cows (farms)	126	0.85%
Whiteside	Cattle and calves inventory - Beef cows (number)	4,004	0.95%
Whiteside	Cattle and calves inventory - Milk cows (farms)	27	1.63%
Whiteside	Cattle and calves inventory - Milk cows (number)	1,083	0.95%
Whiteside	Hogs and pigs inventory (farms)	60	1.53%
Whiteside	Hogs and pigs inventory (number)	61,653	1.51%
Winnebago	Cattle and calves inventory (farms)	200	1.00%
Winnebago	Cattle and calves inventory (number)	17,059	1.26%
Winnebago	Cattle and calves inventory - Beef cows (farms)	112	0.76%
Winnebago	Cattle and calves inventory - Beef cows (number)	2,208	0.52%
Winnebago	Cattle and calves inventory - Milk cows (farms)	42	2.53%
Winnebago	Cattle and calves inventory - Milk cows (number)	2,588	2.27%
Winnebago	Hogs and pigs inventory (farms)	42	1.07%
Winnebago	Hogs and pigs inventory (number)	14,116	0.34%

## Appendix HH. Livestock numbers for counties in the Rock River Basin.

County	Animal Type	# of Farms/Animals	% of Illinois Total
Illinois - Total	Cattle and calves inventory (farms)	19,928	100.00%
Illinois - Total	Cattle and calves inventory (number)	1,359,010	100.00%
Illinois - Total	Cattle and calves inventory - Beef cows (farms)	14,766	100.00%
Illinois - Total	Cattle and calves inventory - Beef cows (number)	422,694	100.00%
Illinois - Total	Cattle and calves inventory - Milk cows (farms)	1,658	100.00%
Illinois - Total	Cattle and calves inventory - Milk cows (number)	114,101	100.00%
Illinois - Total	Hogs and pigs inventory (farms)	3,929	100.00%
Illinois - Total	Hogs and pigs inventory (number)	4,094,706	100.00%

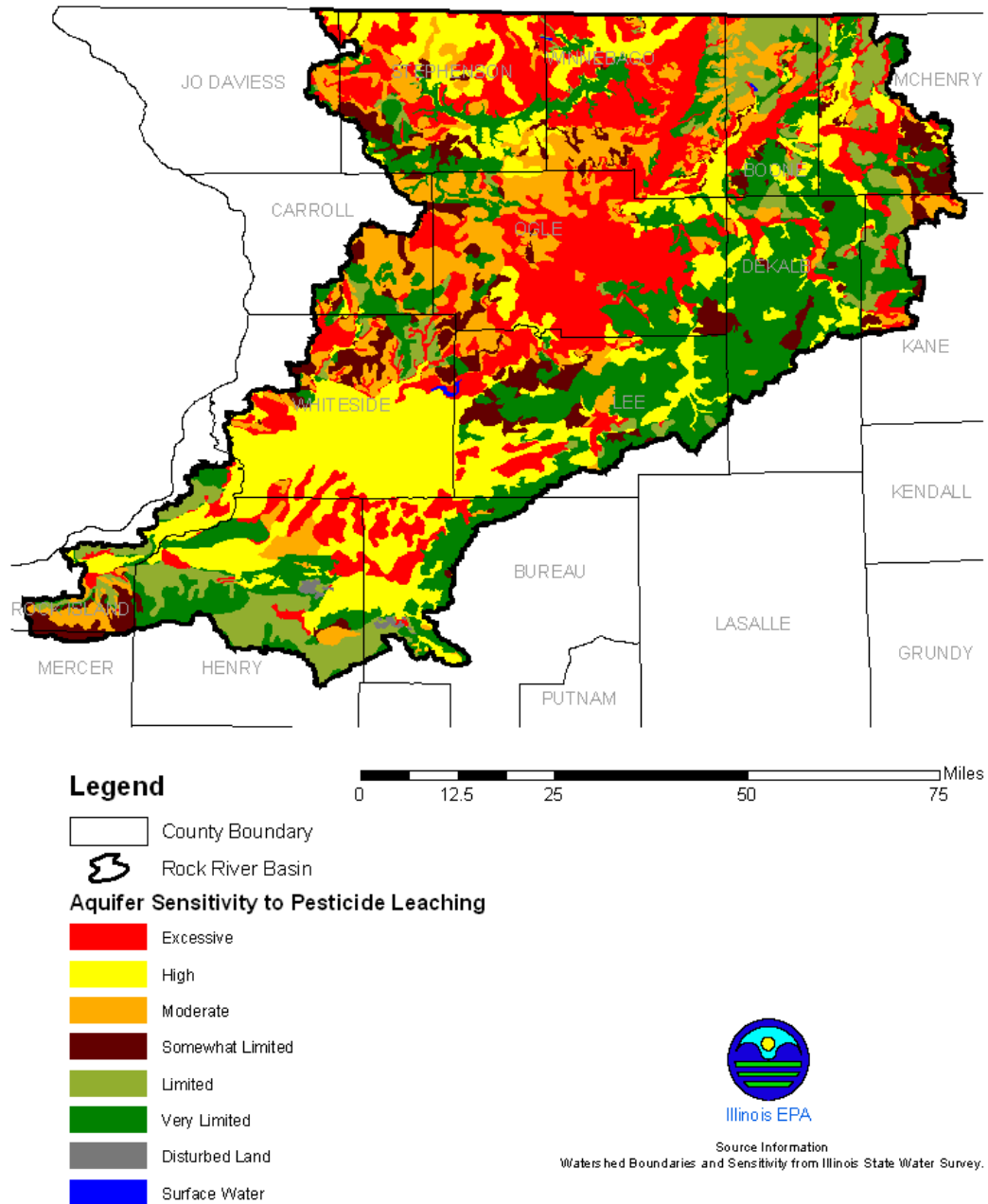
Source: USDA 2002 Census of Agriculture

The following footnotes, headnotes, abbreviations and symbols are used throughout this table:

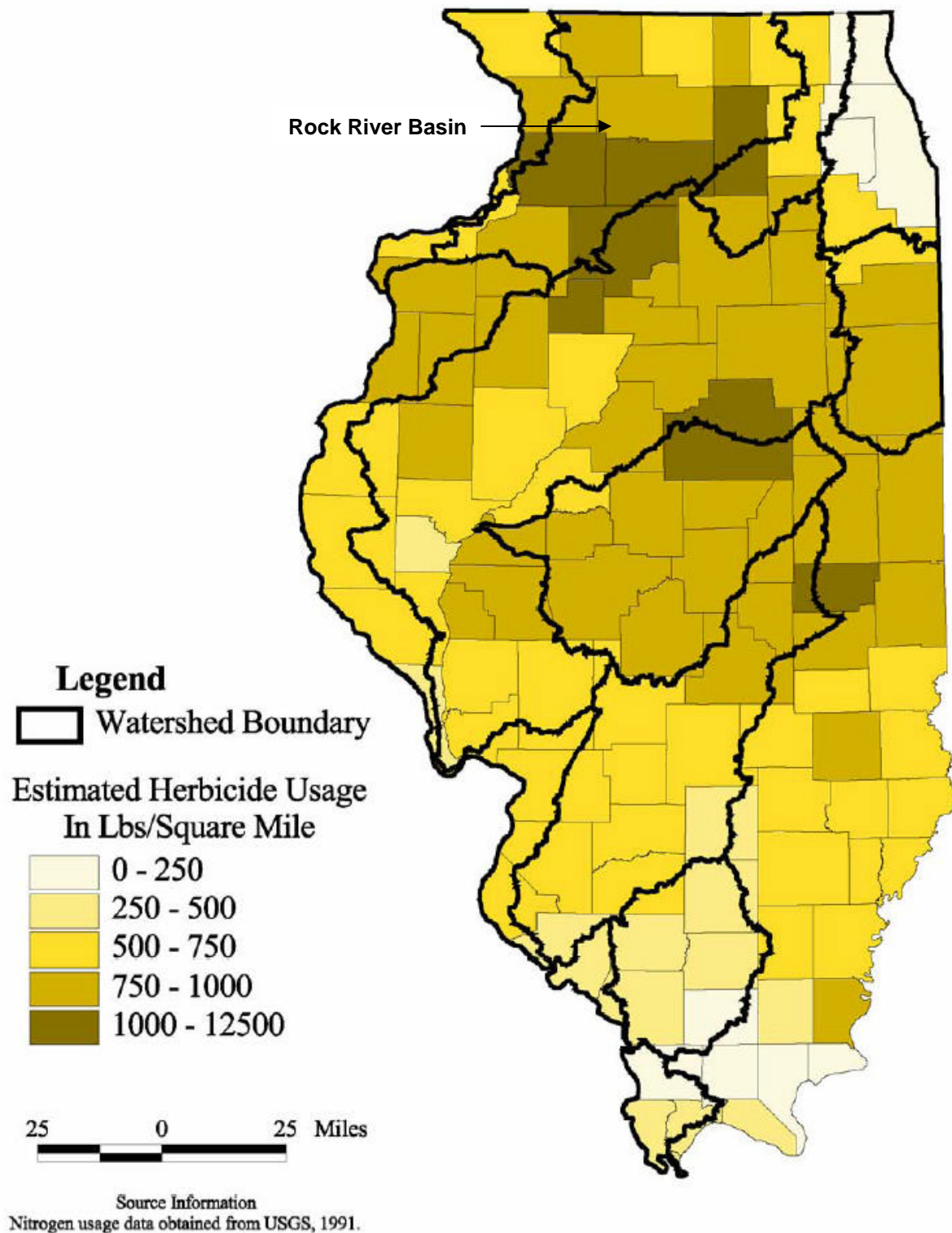
(D) Withheld to avoid disclosing data for individual farms.

1/ Data are based on a sample of farms.

## Appendix II. Potential for Pesticide Leaching in the Rock River Basin.



## Appendix JJ. Estimated herbicide usage in Illinois counties.





## Appendix KK. MS4 Permittees in the Rock River Basin

County: BOONE

Number of 9

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action*</i>
ILR400510	BELVIDERE CITY OF BELVIDERE	119 S STATE STREET, BELVIDERE, IL. 61008	3/12/2003	9/20/2004	PER
ILR400528	BELVIDERE TOWNSHIP BELVIDERE TOWNSHIP	251 W. LOCUST STREET, BELVIDERE, IL. 61008		11/1/2004	NPR
ILR400533	BONUS TOWNSHIP BONUS TOWNSHIP	9015 MARENGO ROAD, GARDEN PRAIRIE, IL. 61038	8/25/2003	8/11/2004	NPR
ILR400534	BOONE COUNTY BOONE COUNTY	601 NORTH MAIN STREET, BELVIDERE, IL. 61008	1/3/2005	5/11/2005	PER
ILR400537	CALEDONIA TOWNSHIP CALEDONIA TOWNSHIP	2269 STATE ROUTE 173, CALEDONIA, IL. 61011		2/25/2005	NPR
ILR400572	FLORA TOWNSHIP FLORA TOWNSHIP	5801 CHRYSLER DRIVE, BELVIDERE, IL. 61008		1/24/2005	NPR
ILR400602	POPLAR GROVE TOWNSHIP POPLAR GROVE TOWNSHIP	13710 BEAVERTON RD, POPLAR GROVE, IL. 61065	8/25/2003	8/12/2004	NPR
ILR400613	SPRING TOWNSHIP SPRING TOWNSHIP	1513 AVERY ROAD, BELVIDERE, IL. 61008	7/28/2003	8/11/2004	NPR
ILR400655	TIMBERLANE VILLAGE OF TIMBERLANE	3873 SILVER FOX DR, TIMBERLANE, IL. 61008		6/23/2005	NPR

---

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: DE KALB

Number of 9

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action*</i>
ILR400615	CORTLAND TOWN OF CORTLAND	POB 519 1909 SOMONAUK RD, CORTLAND, IL. 60112	10/30/2003	9/20/2004	PER
ILR400558	CORTLAND TOWNSHIP CORTLAND TOWNSHIP	22223 LARSON ST, SYCAMORE, IL. 60178		3/8/2005	NPR
ILR400547	DEKALB CITY OF DEKALB	223 S FOURTH ST STE B, DEKALB, IL. 60115	9/2/2003	9/20/2004	PER
ILR400565	DEKALB COUNTY DEKALB COUNTY	110 E SYCAMORE STREET, SYCAMORE, IL. 60178	11/24/2003	9/20/2004	PER
ILR400566	DEKALB TOWNSHIP DEKALB TOWNSHIP	2323 S 4TH ST POB 504, DEKALB, IL. 60115	11/14/2003	9/20/2004	PER
ILR400592	MAYFIELD TOWNSHIP MAYFIELD TOWNSHIP	7470 E. CLARE ROAD, CLARE, IL. 60111		11/1/2004	NPR
ILR400676	NORMAL DRAINAGE DISTRICT NORMAL DRAINAGE DISTRICT	131 BARB BOULEVARD, DEKALB, IL. 60115	11/17/2003	9/27/2004	PER
ILR400552	SYCAMORE CITY OF SYCAMORE	535 DEKALB AVE., SYCAMORE, IL. 60178	2/20/2004	10/6/2004	PER
ILR400614	SYCAMORE TOWNSHIP SYCAMORE TOWNSHIP	545 BRICKVILLE RD, SYCAMORE, IL. 60178		3/29/2005	NPR

---

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: HENRY

Number of 7

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action*</i>
ILR400626	CLEVELAND VILLAGE OF CLEVELAND	108 ANDREA CT, CLEVELAND, IL. 61241		1/26/2005	NPR
ILR400033	COLONA COLONA TOWNSHIP	121 EAST 6TH AVE A, COLONA, IL. 61241		1/18/2005	NPR
ILR400317	COLONA VILLAGE OF COLONA	100 E 9TH AVE POB 170, COLONA, IL. 61241	3/10/2003	9/20/2004	PER
ILR400346	GREEN ROCK CITY OF GREEN ROCK	CITY HALL, GREEN ROCK, IL. 61241		2/23/2005	VOI
ILR400062	HANNA HANNA TOWNSHIP	24781 HAZELWOOD WEST RD, GENESEO, IL. 61254		2/4/2005	NPR
ILR400257	HENRY HENRY COUNTY	307 W CENTER ST, CAMBRIDGE, IL. 61238	1/21/2003	1/31/2003	NPR
ILR400667	WESTERN TOWNSHIP WESTERN TOWNSHIP	113 HENRY DR, ORION, IL. 61273		4/20/2005	NPR

---

\*PER = Permit; NPR = No Permit Required; VOI = Void

Appendix KK. MS4 Permittees in the Rock River Basin

County: JO DAVIESS

Number of 1

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action*</i>
ILR400258	JODAVIESS JODAVIESS COUNTY	330 N BENCH ST, GALENA, IL. 61036		5/11/2005	NPR

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: KANE

Number of 5

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action*</i>
ILR400043	DUNDEE DUNDEE TOWNSHIP	1900 SLEEPY HOLLOW ROAD, DUNDEE, IL. 60118	3/12/2003	9/21/2004	PER
ILR400196	GILBERTS GILBERTS VILLAGE	87 GALLIGAN ROAD, GILBERTS, IL. 60136	3/13/2003	9/22/2004	PER
ILR400259	KANE KANE COUNTY	719 S BATAVIA AVE, GENEVA, IL. 60134	3/10/2003	9/23/2004	PER
ILR400484	PLATO TOWNSHIP PLATO TOWNSHIP HIGHWAY DEPT	10N924 RIPPBURGER RD, PLATO CENTER, IL. 60170	3/10/2003	10/4/2004	PER
ILR400121	RUTLAND RUTLAND TOWNSHIP	918 MAGNOLIA STREET, MARSEILLES, IL. 61341		3/8/2005	NPR

---

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: MCHENRY

Number of 7

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
ILR400179	CRYSTAL LAKE CRYSTAL LAKE CITY	POB 597, CRYSTAL LAKE, IL. 60014	3/10/2003	9/20/2004	PER
ILR400039	DORR DORR TOWNSHIP	140 NEWELL ST, WOODSTOCK, IL. 60098	8/11/2003	9/21/2004	PER
ILR400058	GRAFTON GRAFTON TOWNSHIP	10109 VINE STREET, HUNTLEY, IL. 60142			
ILR400368	LAKE IN THE HILLS VILLAGE OF LAKE IN THE HILLS	600 HARVEST GATE, LAKE IN THE HILLS, IL. 60156	3/10/2003	9/23/2004	PER
ILR400372	LAKEWOOD VILLAGE OF LAKEWOOD	2500 LAKE AVE, LAKEWOOD, IL. 60014	3/6/2003	9/23/2004	PER
ILR400264	MCHENRY MCHENRY COUNTY	16111 NELSON ROAD, WOODSTOCK, IL. 60098	3/10/2003	9/27/2004	PER
ILR400499	WOODSTOCK CITY OF WOODSTOCK	121 W CALHOUN STREET, WOODSTOCK, IL. 60098		10/27/2004	PER

---

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: ROCK ISLAND

Number of 20

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
ILR400011	BLACKHAWK BLACKHAWK TOWNSHIP	230 4TH ST EAST, MILAN, IL. 61264		11/17/2004	NPR
ILR400016	BOWLING BOWLING TOWNSHIP	14911 31ST ST CT W, MILAN, IL. 61264		3/8/2005	NPR
ILR400307	CARBON CLIFF VILLAGE OF CARBON CLIFF	POB 426, CARBON CLIFF, IL. 61239	3/10/2003	9/20/2004	PER
ILR400031	COAL VALLEY COAL VALLEY TOWNSHIP	2522 WEST 3RD ST, COAL VALLEY, IL. 61240		1/12/2005	NPR
ILR400176	COAL VALLEY COAL VALLEY CITY	POB 105, COAL VALLEY, IL. 61240	3/10/2003	1/24/2005	PER
ILR400330	EAST MOLINE CITY OF EAST MOLINE	912 16TH AVE, EAST MOLINE, IL. 61244	3/10/2003	9/21/2004	PER
ILR400061	HAMPTON HAMPTON TOWNSHIP	315 12TH AVE, SILVIS, IL. 61282			
ILR400388	MILAN VILLAGE OF MILAN	321 WEST SECOND AVENUE, MILAN, IL. 61264	8/14/2003	9/27/2004	PER
ILR400087	MOLINE MOLINE TOWNSHIP	1020 18TH AVE, MOLINE, IL. 61265		2/1/2005	NPR
ILR400389	MOLINE CITY OF MOLINE	619 16TH STREET, MOLINE, IL. 61265	3/10/2003	9/27/2004	PER
ILR400231	OAK GROVE OAK GROVE VILLAGE	POB 566, MILAN, IL. 61264		5/11/2005	NPR
ILR400644	RAPIDS CITY VILLAGE OF RAPIDS CITY	POB 134, RAPIDS CITY, IL. 61278	8/1/2003		

## Appendix KK. MS4 Permittees in the Rock River Basin

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
County:	ROCK ISLAND				
ILR400117	ROCK ISLAND ROCK ISLAND TOWNSHIP	2827 7TH AVENUE, ROCK ISLAND, IL. 61201		3/25/2005	NPR
ILR400268	ROCK ISLAND ROCK ISLAND COUNTY	1504 3RD AVE, ROCK ISLAND, IL. 61201	3/6/2003	6/23/2005	PER
ILR400432	ROCK ISLAND CITY OF ROCK ISLAND	1309 MILL STREET, ROCK ISLAND, IL. 61201	3/7/2003	10/4/2004	PER
ILR400609	RURAL TOWNSHIP RURAL TOWNSHIP	7201 134TH AVENUE, COAL VALLEY, IL. 61240		11/1/2004	NPR
ILR400446	SILVIS CITY OF SILVIS	1032 1ST AVENUE, SILVIS, IL. 61282	4/25/2003	10/6/2004	PER
ILR400126	SOUTH MOLINE SOUTH MOLINE TOWNSHIP	5303 17TH AVE, MOLINE, IL. 61265	7/3/2003	7/22/2003	NPR
ILR400127	SOUTH ROCK ISLAND SOUTH ROCK ISLAND TOWNSHIP	1019 27TH AVE, ROCK ISLAND, IL. 61201		11/1/2004	NPR
ILR400671	ZUMA TOWNSHIP ZUMA TOWNSHIP/DALE KILLEN	POB 412, PORT BYRON, IL. 61275		5/11/2005	NPR

---

\*PER = Permit; NPR = No Permit Required; VOI = Void



Appendix KK. MS4 Permittees in the Rock River Basin

County: WHITESIDE

Number of 1

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
ILR400556	COE TOWNSHIP COE TOWNSHIP	9500 284th STREET N, HILLSDALE, IL. 61257	9/3/2003	4/26/2004	NPR

PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix KK. MS4 Permittees in the Rock River Basin

County: WINNEBAGO

Number of 18

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
ILR400019	BURRITT BURRITT TOWNSHIP	7529 HARRISON RD, ROCKFORD, IL. 61101	4/21/2003	4/1/2005	NPR
ILR400172	CHERRY VALLEY CHERRY VALLEY VILLAGE	806 EAST STATE ST POB 368, CHERRY VALLEY, IL. 61016	3/7/2003	9/20/2004	PER
ILR400028	CHERRY VALLEY TOWNSHIP CHERRY VALLEY TOWNSHIP	4875 BLACKHAWK ROAD, ROCKFORD, IL. 61109	3/31/2003	3/17/2005	PER
ILR400064	HARLEM HARLEM TOWNSHIP	819 MELBOURNE AVE, MACHESNEY PARK, IL. 61115	3/24/2003		
ILR400379	LOVES PARK CITY OF LOVES PARK	100 HEART BLVD, LOVES PARK, IL. 61111	3/10/2003	9/23/2004	PER
ILR400221	MACHESNEY PARK MACHESNEY PARK VILLAGE	300 MACHESNEY RD, MACHESNEY PARK, IL. 61115	3/10/2003	9/27/2004	PER
ILR400227	NEW MILLFORD NEW MILLFORD VILLAGE	6771 11TH ST, ROCKFORD, IL. 61109	3/10/2003	10/25/2004	NPR
ILR400106	OWEN OWEN TOWNSHIP	1048 LUANNA DRIVE, ROCKFORD, IL. 61103	3/18/2003		
ILR400118	ROCKFORD ROCKFORD TOWNSHIP	404 N SPRINGFIELD AVE, ROCKFORD, IL. 61101	4/25/2003		
ILR400551	ROCKFORD CITY OF ROCKFORD	425 E STATE ST, ROCKFORD, IL. 61104			VOI
ILR400119	ROCKTON ROCKTON TOWNSHIP	1301 N BLACKHAWK BLVD, ROCKTON, IL. 61072	3/31/2003		
ILR400434	ROCKTON VILLAGE OF ROCKTON	110 E MAIN ST, ROCKTON, IL. 61072	3/12/2003	12/8/2004	PER

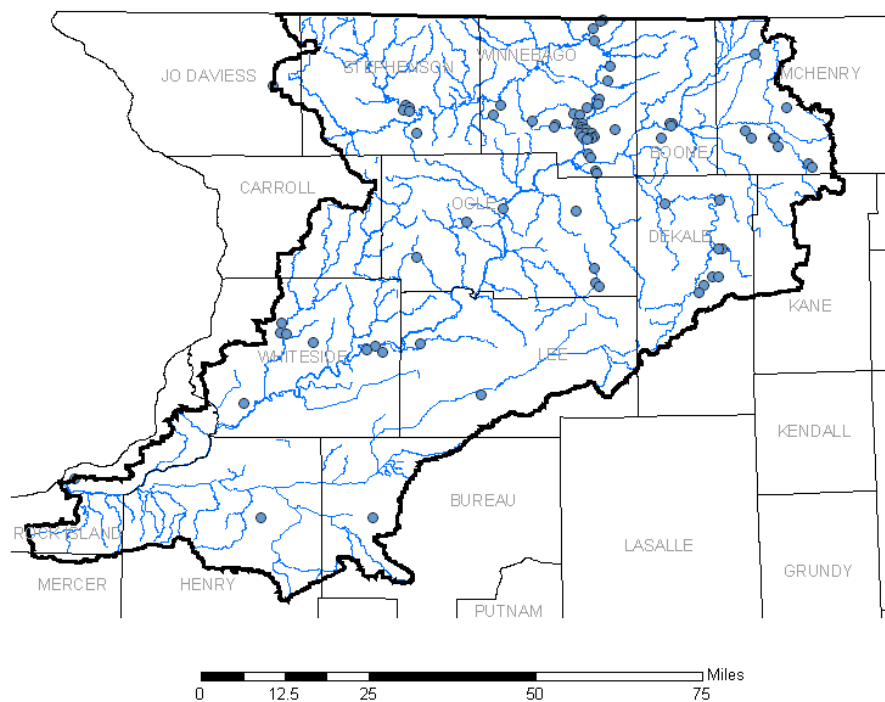
## Appendix KK. MS4 Permittees in the Rock River Basin

<i>Permit No.</i>	<i>Operator Name</i>	<i>Address</i>	<i>Date Recd</i>	<i>Final Act</i>	<i>Fin Action</i>
ILR400120	ROSCOE ROSCOE TOWNSHIP	12184 LOVE ROAD, ROSCOE, IL. 61073	6/6/2005	7/11/2005	PER
ILR400240	ROSCOE ROSCOE VILLAGE	10631 MAIN ST POB 283, ROSCOE, IL. 61073	3/12/2003	5/24/2005	PER
ILR400245	SOUTH BELOIT SOUTH BELOIT CITY	519 BLACKHAWK BLVD, SOUTH BELOIT, IL. 61080	2/26/2003	10/6/2004	PER
ILR400475	WINNEBAGO VILLAGE OF WINNEBAGO	VILLAGE HALL 108 W MAIN ST, WINNEBAGO, IL. 61088	5/9/2003	11/8/2004	PER
ILR400505	WINNEBAGO COUNTY WINNEBAGO COUNTY	404 ELM STREET, ROCKFORD, IL. 61101	3/10/2003	1/25/2005	PER
ILR400669	WINNEBAGO TOWNSHIP WINNEBAGO TOWNSHIP	POB 575, WINNEBAGO, IL. 61088	8/11/2003	4/1/2005	NPR





---

\*PER = Permit; NPR = No Permit Required; VOI = Void

## Appendix LL. CERCLIS Sites in the Rock River Basin.



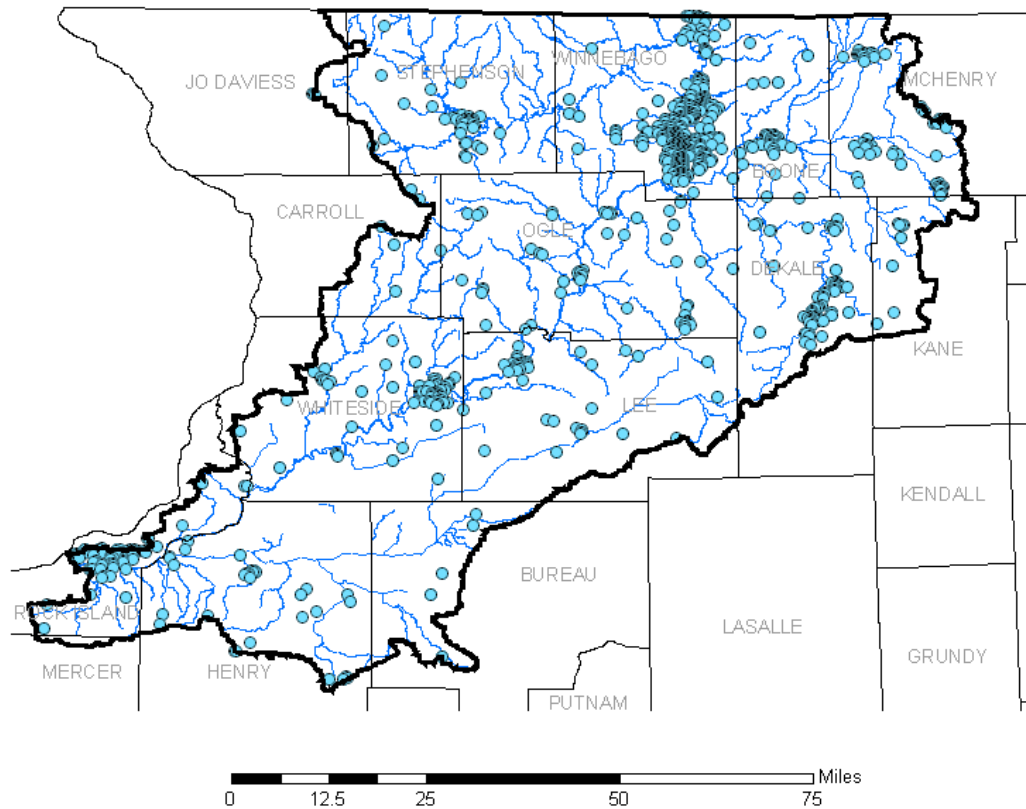
### Legend

-  County Boundary
-  Rock River Basin
-  CERCLIS Sites
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
CERCLIS sites from USEPA.

## Appendix MM. RCRIS Sites in the Rock River Basin.



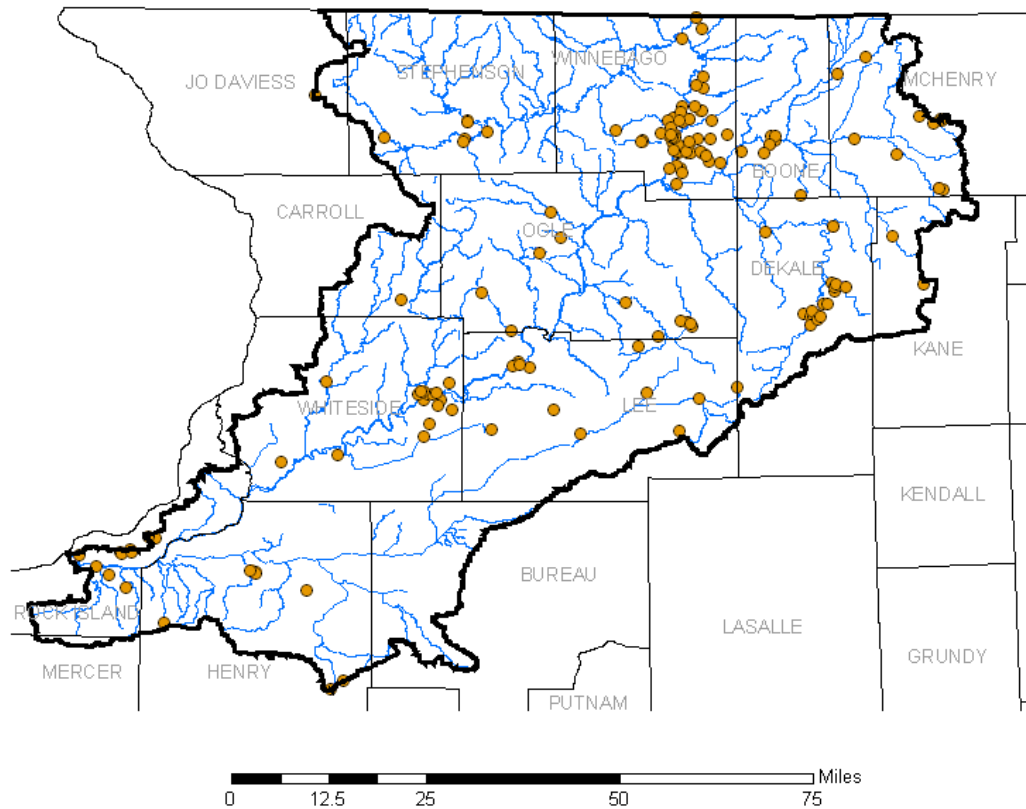
### Legend

-  County Boundary
-  Rock River Basin
-  RCRIS Sites
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
RCRIS sites from USEPA.

## Appendix NN. State Voluntary Cleanups in the Rock River Basin.



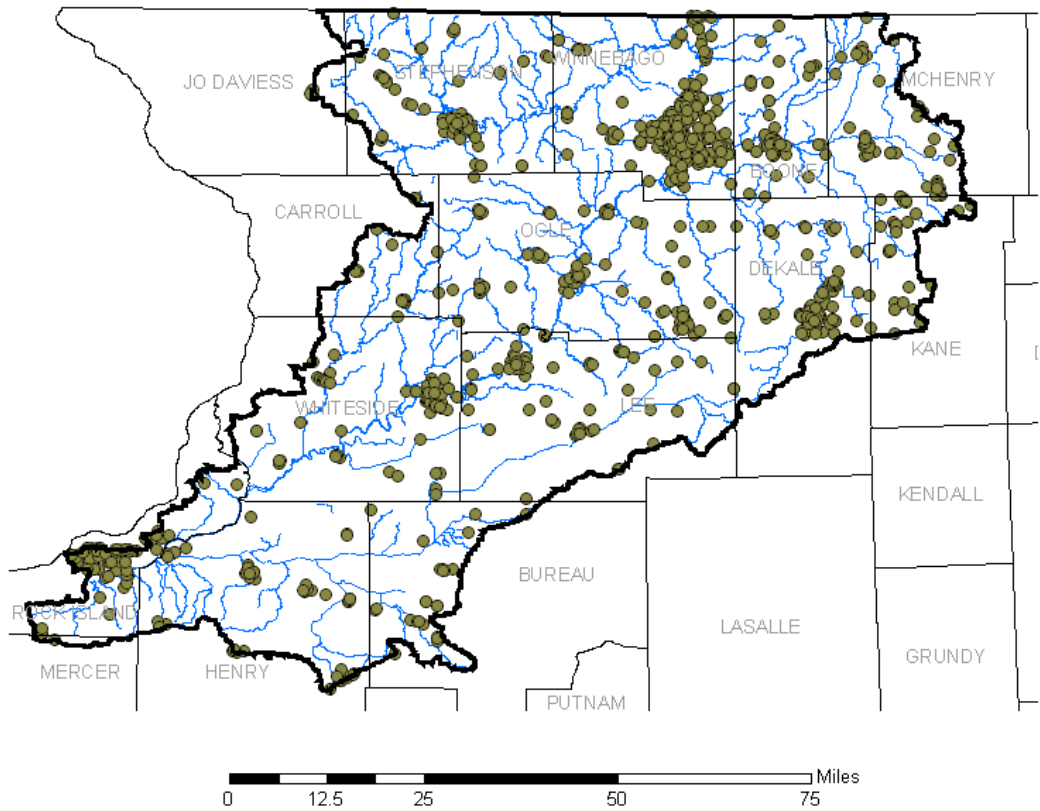
### Legend

-  County Boundary
-  Rock River Basin
-  State Voluntary Cleanup Sites
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
Cleanup sites from Illinois EPA.

**Appendix OO. LUST Sites in the Rock River Basin.**



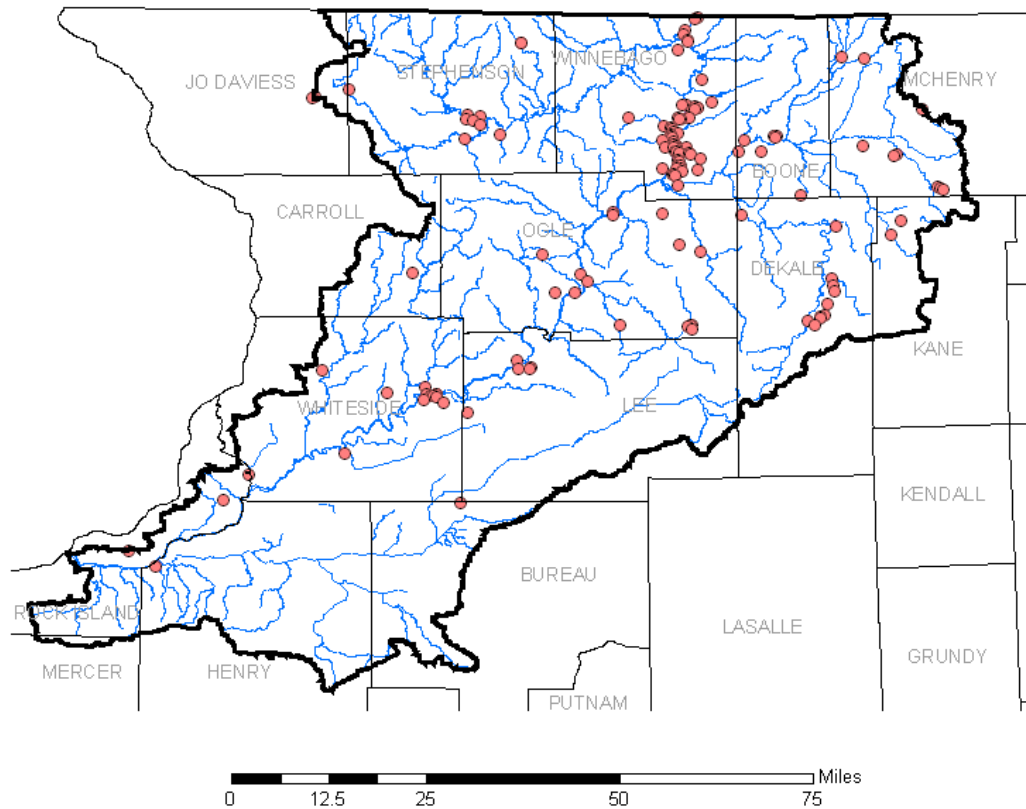
**Legend**

-  County Boundary
-  Rock River Basin
-  LUST Sites
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
LUST sites from Illinois EPA.

## Appendix PP. TRI Sites in the Rock River Basin.



### Legend

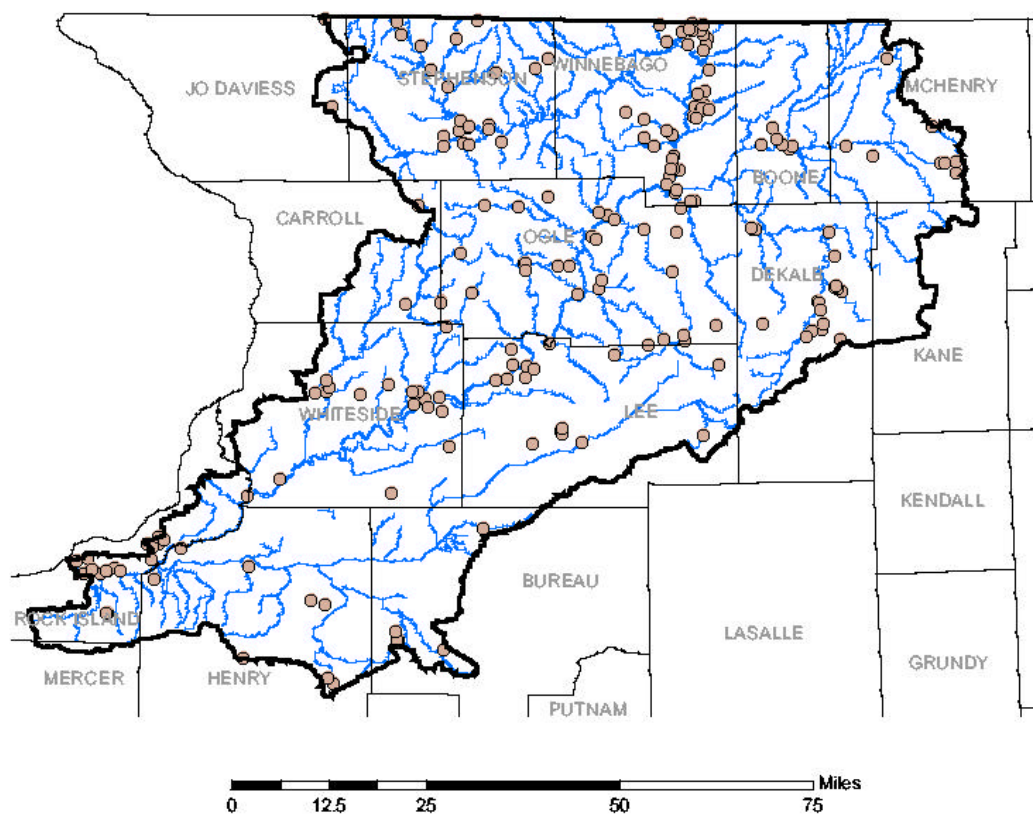
-  County Boundary
-  Rock River Basin
-  TRI Sites
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
TRI sites from Illinois EPA.



## Appendix QQ. Landfills in the Rock River Basin.



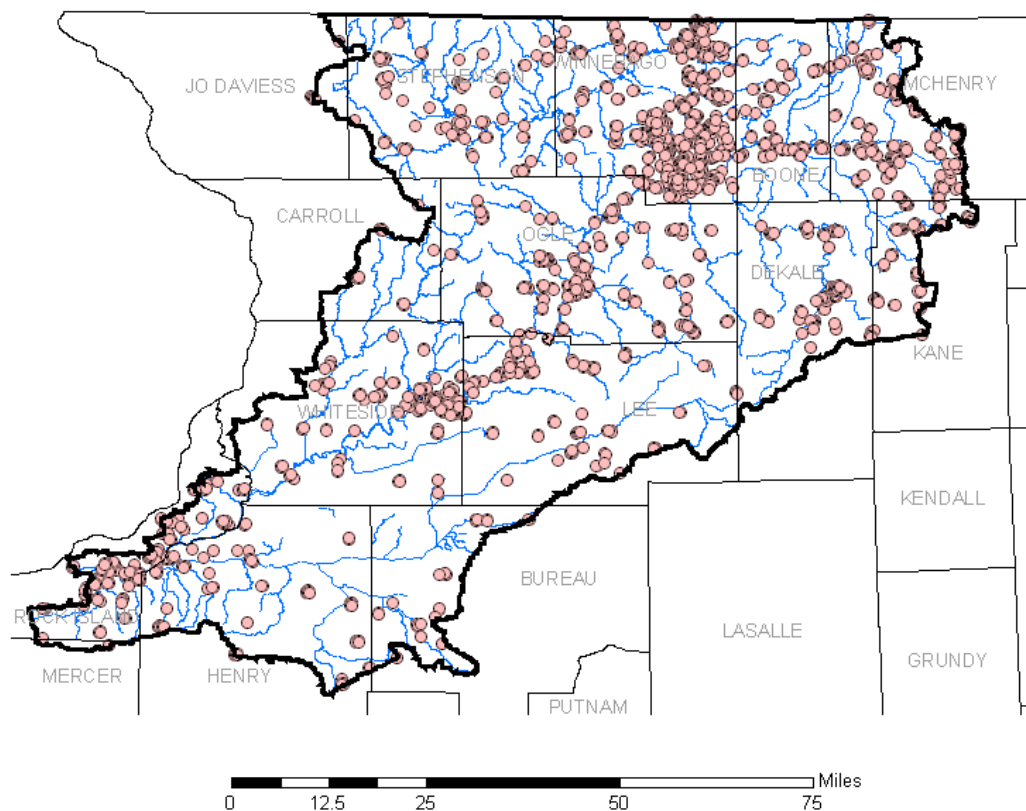
### Legend

-  County Boundary
-  Rock River Basin
-  Active and Inactive Landfills
-  streams







Source Information  
Watershed Boundaries from Illinois State Water Survey.  
Landfills sites from USEPA.

## Appendix RR. Potential Sources within WHPA's in the Rock River Basin.



### Legend

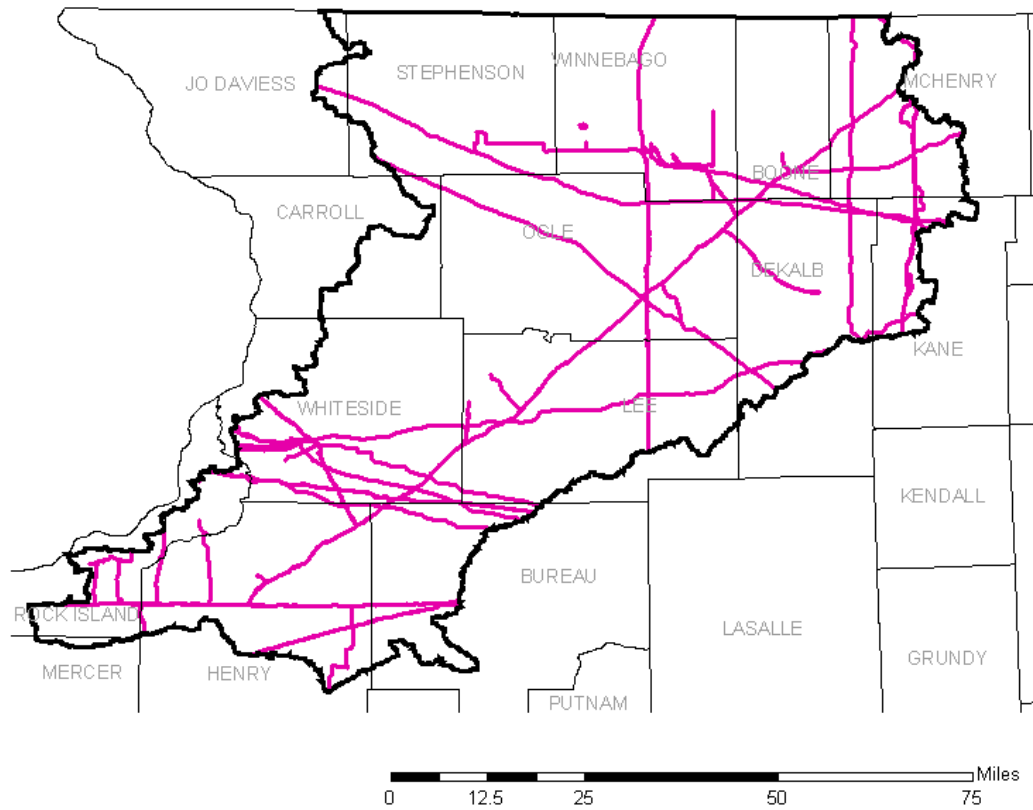
-  County Boundary
-  Rock River Basin
-  Potential Sources of Contamination (Well Site Survey)
-  streams






Illinois EPA

Source Information  
Watershed Boundaries from Illinois State Water Survey.  
Potential Sources from Illinois EPA.

## Appendix SS. Oil and Gas Lines in the Rock River Basin.



### Legend

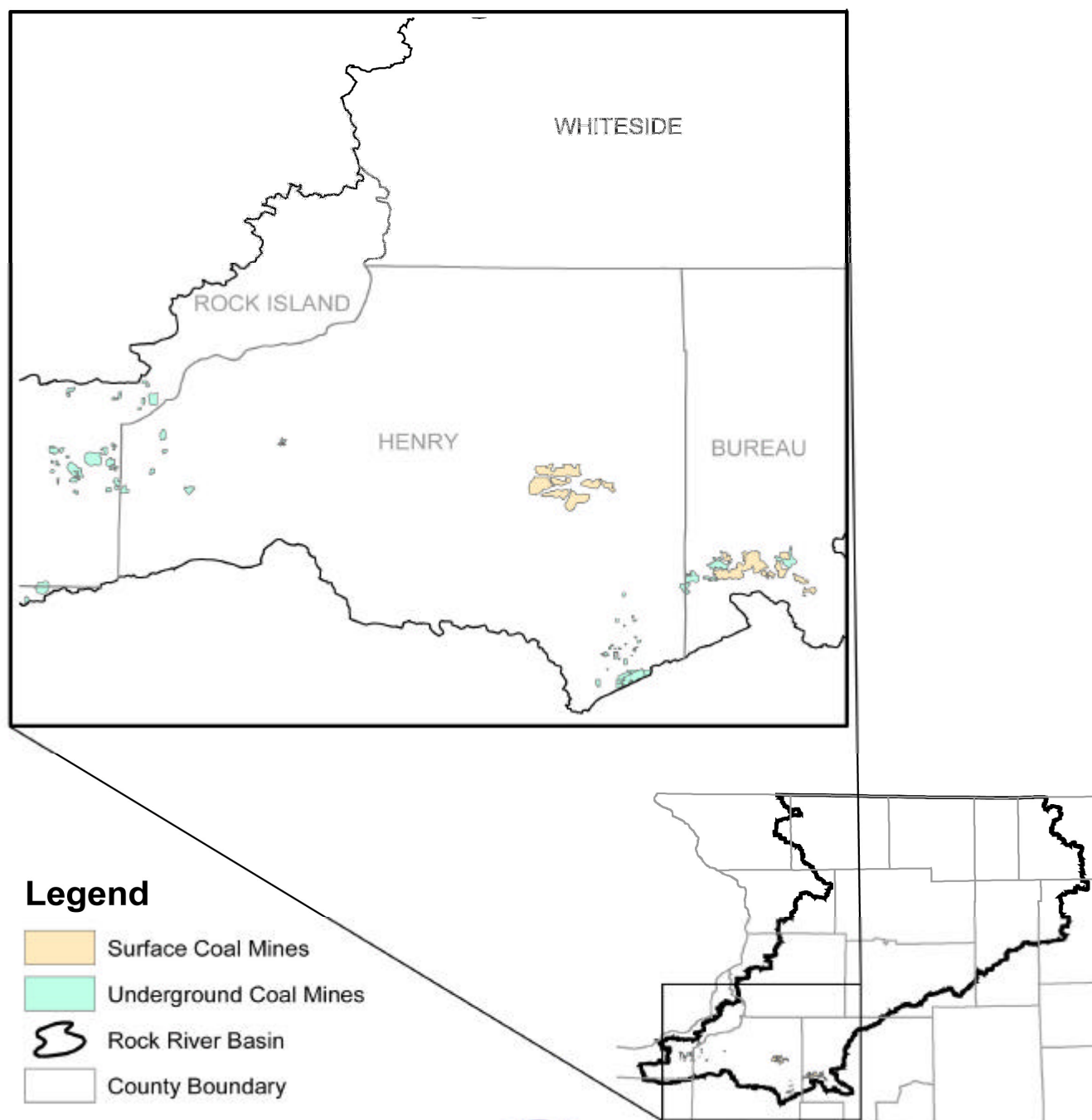
-  County Boundary
-  Rock River Basin
-  Oil and Gas Pipelines



Illinois EPA

Source Information  
Watershed Boundaries from Illinois State Water Survey.  
Oil and Gas Lines from National Pipeline Mapping System.

## Appendix TT. Surface and Underground Coal Mines in the Rock River Basin.



Illinois EPA

Source Information  
Aquifer Boundaries from Illinois State Water Survey.  
Mines from IDNR.

**Appendix UU.** Channelized Streams in the Illinois portion of the Rock River Basin.

<b>IEPA Stream Code</b>	<b>Stream Name</b>	<b>Stream Size (mi.)</b>	<b>Channelized Miles</b>	<b>Percent Channelized</b>
P?	Rock River Tribs	23.3	8.6	36.9
PA	Mill Cr	22.1	4.2	19.0
PB	Green R	89.6	77.3	86.3
PB?	Green R Tribs	30.1	10.3	34.2
PBC	Mud Cr & Tribs	10.6	8.5	80.2
PBD	Mineral Cr	12.5	1.3	10.4
PBE	Geneseo Cr	14.1	1.8	12.8
PBG	Big Sl Dr Ditch	18.4	17.8	96.7
PBI	Spring Cr	19.4	2.3	11.9
PBJ	Mud Cr	27.8	15.3	55.0
PBJA	Coal Cr & Tribs	52.4	27.0	51.5
PBK	Main Union Special Ditch	12.1	12.0	99.2
PBL	Central Special Ditch	7.3	7.2	98.6
PBLA	Wildcat Ditch	10.0	9.8	98.0
PBM	Fairfield Ditch #1	12.6	12.4	98.4
PBO	Fairfield Union Spec. Ditch	11.3	11.1	98.2
PBQ	Walnut Cr	16.5	5.6	33.9
PBS	Winnebago Ditch	13.6	13.4	98.5
PBSA	Main Ditch	19.8	16.4	82.8
PBT	Red Oak Ditch	8.9	4.3	48.3
PBU	Willow Cr	17.8	5.0	28.1
PBUA	Dry Run	9.0	1.8	20.0
PD	Meredosia Ditch	4.8	4.7	97.9
PDA	Mineral Spring Cr	10.1	6.9	68.3
PDA?	Mineral Spring Cr Tribs	14.2	13.0	91.5
PE	Rock Cr	53.7	3.6	6.7
PEA	Lynn Cr	10.1	1.9	18.8
PF	Coon Cr	18.8	16.1	85.6
PFA	County Ditch #1	8.0	7.9	98.8
PFAA	Branch F Ditch	7.8	7.7	98.7
PFAB	South Fk Ditch	6.3	6.2	98.4
PFB	Coon Cr Ditch	9.9	9.8	99.0
PG	Walker Slough	12.3	7.6	61.8
PH	Elkhorn Cr	55.1	0.4	0.7
PHB	Sugar Cr	13.3	3.1	23.3
PHE	Buffalo Cr	13.9	1.4	10.1
PHH	Middle Cr	8.3	1.1	13.3
PHI	Fivemile Cr	6.3	2.1	33.3
PI	Howland Cr	10.3	6.9	67.0

**Appendix UU.** Channelized Streams in the Illinois portion of the Rock River Basin.

<b>IEPA Stream Code</b>	<b>Stream Name</b>	<b>Stream Size (mi.)</b>	<b>Channelized Miles</b>	<b>Percent Channelized</b>
PIA	Fivemile Br Ditch	13.5	8.8	65.2
PK	Franklin Cr	18.1	0.8	4.4
PL	Kyte R	31.4	10.2	32.5
PLA	McAdam Cr	11.4	1.1	9.6
PLB	Beach Cr	8.2	5.3	64.6
PLC	Steward Cr	13.9	5.3	38.1
PNB	Forreston Cr	11.8	0.6	5.1
PP	Stillman Cr	16.0	2.2	13.8
PPA	Black Walnut Cr	9.9	0.5	5.1
PQ	Kishwaukee R	59.7	17.4	29.1
PQ?	Franklinville Cr	5.1	2.7	52.9
PQB	Killbuck Cr	33.9	2.5	7.4
PQBE	Spring Run	5.7	3.6	63.2
PQBB	E. Br. - Malta Trib	11.3	2.6	23.0
PQC	S Br Kishwaukee R	66.0	18.4	27.9
PQCA	Trimble Run	7.7	3.5	45.5
PQCB	Owens Cr	16.0	3.0	18.8
PQCC	Kingsbury Cr	7.9	4.3	54.4
PQCE	Deer Cr	9.5	4.2	44.2
PQCF	N Br S Br Kishwaukee	6.9	6.0	87.0
PQCG	Middle Br S Br Kishwaukee	5.7	4.3	75.4
PQCH	S Br S Br Kishwaukee	5.0	3.2	64.0
PQCL	E Br S Br Kishwaukee	9.2	9.1	98.9
PQCM	Union Ditch #3	12.7	12.6	99.2
PQCN	Union Ditch #2	34.0	29.3	86.2
PQD	Beaver Cr	28.4	1.9	6.7
PQDA	Mosquito Cr	8.2	1.1	13.4
PQE	Piscasaw Cr	25.8	5.9	22.9
PQEG	Geryune Cr	11.3	10.4	92.0
PQEA	Mokeler Cr	10.4	4.1	39.4
PQEB	W Br Piscasaw Cr	6.0	6.0	100.0
PQEC	Lawrence Cr	8.1	5.3	65.4
PQEF	Little Beaver Cr	8.1	5.8	71.6
PQF	Coon Cr	28.2	16.6	58.9
PQFB	Spring Cr	9.1	2.3	25.3
PQFC	Burlington Cr	9.1	6.6	72.5
PQFD	Hampshire Cr	6.6	5.8	87.9

**Appendix UU.** Channelized Streams in the Illinois portion of the Rock River Basin.

<b>IEPA Stream Code</b>	<b>Stream Name</b>	<b>Stream Size (mi.)</b>	<b>Channelized Miles</b>	<b>Percent Channelized</b>
PQFF	Harmony Cr	6.7	6.6	98.5
PQG	Mud Cr	6.2	2.7	43.5
PQH	Rush Cr	15.3	10.6	69.3
PQI	S Br Kishwaukee R	19.0	12.0	63.2
PQI?	Kishwaukee Cr	7.9	7.7	97.5
PQIC	Eakin Cr	9.4	6.6	70.2
PQJ	N Br Kishwaukee R	19.1	10.0	52.4
PR	Keith Cr	13.6	8.0	58.8
PS	Kent Cr	0.5	0.5	100.0
PSA	S Fk Kent Cr	9.9	3.1	31.3
PSB	N Fk Kent Cr	11.4	5.0	43.9
PWA	Raccoon Cr	7.9	1.1	13.9
PWBA	Otter Cr	6.1	0.9	14.8
PWBC	S Br Otter Cr	11.7	0.9	7.7
PWIA	Pink Cr	9.0	1.5	16.7
PWIC	Brown Cr	7.7	0.5	6.5
PWL	Winneshiek Cr	9.8	1.0	10.2
PWN	Yellow Cr	49.2	0.8	1.6
PWNA	Crane Grove Cr	9.2	0.5	5.4
PWNB	Lost Cr	13.9	2.0	14.4
PWO	Preston Cr	7.3	0.3	4.1
PWPB	Brush Cr	7.2	0.3	4.2
PWQ	Waddams Cr	10.4	0.2	1.9
PZA	Case Cr	10.7	2.4	22.4
PZB	Coal Cr	13.2	4.1	31.1
PZD	Zuma Cr	12.9	7.2	55.8
PZG	Canoe Cr	7.6	0.3	3.9
PZR	Threemile Br	22.0	3.2	14.5
PZT	Sevenmile Cr	11.0	1.0	9.1
PZU	Clear Cr	8.3	0.4	4.8
PZX	Hennipin C	33.9	33.4	98.5
PZX?	Hennipin Feeder C	29.2	28.7	98.3
PZZI	Willow Cr	11.9	0.2	1.7
PZZJ	Blacks Cr	8.4	4.4	52.4
PZZL	Otter Cr	15.8	0.2	1.3
<b>Total:</b>			<b>775.4</b>	

Derived from Illinois Streams Information System, Illinois Department of Natural Resources, 1999.

## APPENDIX VV

### FEDERAL FUNDING SOURCES

A variety of funding sources are available to support implementation of the Best Management Practices and other management measures addressed in the TMDL document. The following table provides a brief overview of several of these sources available at the Federal level. Additional information on these sources is available from the U.S. Environmental Protection Agency publication, *Catalog of Federal Funding Sources for Watershed Protection*, EPA 841-B-99-003. The publication presents information on 69 federal funding sources (grants and loans) that may be used to fund a variety of watershed protection projects. The information on funding sources is organized into categories including coastal waters, conservation, economic development, education, environmental justice, fisheries, forestry, Indian tribes, mining, pollution prevention and wetlands. More information is also available at <http://www.epa.gov/owow/watershed/funding.html/>.

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
<b>U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) - PROGRAM GRANTS TO STATES</b> Watersheds and Nonpoint Source Programs Branch, U.S. EPA Region 5			
Nonpoint Source Implementation Grants (319)	The 319 program provides formula grants to the States to implement nonpoint source projects and programs in accordance with Section 319 of the Clean Water Act.	States and Indian Tribes	Grants are awarded to a lead state agency. States and local organizations receiving 319 grants are required to provide 40 percent of program cost.
Water Quality Cooperative Agreements (104 (b)(3))	Grants are provided to support new approaches to meeting storm water, combined sewer outflows, sludge, and pretreatment requirements as well as enhancing State capabilities. Eligible projects usually include research, investigations, experiments, training, environmental technology demonstrations, surveys, and studies related to the causes, effects, extent, and prevention of pollution.	State water pollution control agencies, interstate agencies, local public agencies, Indian Tribes, nonprofit institutions, organizations, and individuals	Grants are awarded; matching is encouraged.
Water Quality Management Planning (205 (J))	Formula grants are awarded to State water quality management agencies to carry out water quality planning. States are required to allocate at least 40 percent of funds to eligible Regional Public Comprehensive Planning Agencies (RPCPO) and Interstate Organizations (IO).	States	States are required to allocate at least 40 percent of funds to eligible RPCPOs and IOs.



PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
State Revolving Funds (SRF)	EPA awards grant money to States to establish SRFs. Under the SRF program, Illinois has created revolving loan funds to provide independent and permanent sources of low-cost financing for a range of water quality infrastructure projects. States set loan terms, repayment periods, and other loan features. SRFs are available to fund a wide variety of water quality projects including all types of nonpoint source and estuary management projects, as well as more traditional wastewater treatment projects.	States	Grants are awarded to a lead agency. Loans are provided to eligible participants.
Capitalization Grants for State Revolving Funds	EPA awards grants to States to capitalize their Clean Water State Resolving Funds (SRF). The States, through the SRF, make loans for high priority water quality activities. Loans are used for water quality management activities.	States, Tribes, Puerto Rico, Territories, and DC	Grants are awarded to a lead agency. Loans are provided by the state to eligible participants. States are required to provide a 20 percent match
Capitalization Grants for Drinking Water State Revolving Funds	EPA awards grant money to Illinois for Drinking Water State Revolving Funds (DWSRF) creation. Illinois, through its DWSRF, provides loans for drinking water supply-related projects. Although the majority of loan money is intended for upgrades of infrastructure (public or private drinking water supplies), Illinois also has the option to use some of the DWSRF funds for source water protection, capacity development, drinking water programs, and operator certification programs. DWSRF emphasizes preventing contamination and enhancing water systems management.	States, Territories, U.S. possessions, and Indian Tribes.	Grants and loans are awarded to drinking water suppliers. A 20 percent match from the State is required.

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
Water Pollution Control Program Grants (Section 106)	This program authorizes EPA to provide assistance to States and interstate agencies to establish and implement ongoing water pollution control programs. Prevention and control measures supported include permitting, pollution control activities, surveillance, monitoring, and enforcement; advice and assistance to local agencies; and the provision of training and public information. The Section 106 programs help foster a watershed approach at the State level by looking at water quality problems holistically.	States, interstate agencies, and Indian Tribes	Funds are allotted among the State and Interstate Water Pollution Control agencies on the basis of the extent of water pollution problems in the respective States.
<b>EPA - PROJECT GRANTS</b> Watersheds and Nonpoint Source Programs Branch, U.S. EPA Region 5			
Great Lakes Program	EPA's Great Lakes Program issues awards assistance to projects affecting the Great Lakes Basin or in support of the U.S.-Canada Great Lakes Water Quality Agreement. Such activities include surveillance and monitoring of Great Lakes water quality and land use activities.	State water pollution control agencies, interstate agencies, other public or nonprofit agencies, institutions, organizations, and individuals	Project grants, use of property and equipment, provision of specialized services, and dissemination of technical information are the forms of assistance provided.
Pollution Prevention Grants Program	This program provides project grants to States to implement pollution prevention projects. The grant program is focused on institutionalizing multimedia pollution prevention (air, water, land).	States and Indian Tribes	Individual grants are awarded based on requests. States are required to provide at least 50 percent of total project costs
Wetlands Protection Development Grants Program	This program provides financial assistance to States, Indian Tribes, and local governments to support wetlands development or augmentation and enhancement of existing programs. Projects must clearly demonstrate a direct link to an increase in the group's ability to protect its wetland resources.	States, Indian Tribes, Interstate/Intertribal agencies, local governments	Project grants are used to fund individual projects. States or Tribes must provide a 25 percent match of the total project cost

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
<b>NATURAL RESOURCES CONSERVATION SERVICE (NRCS)</b>			
Environmental Quality Incentives Program (EQIP)	EQIP provides technical, financial, and educational assistance, half of it targeted to livestock-related natural resource concerns and the other half to more general conservation priorities. EQIP is available primarily in priority areas where there are significant natural resource concerns and objectives.	Non-federal landowners engaged in livestock operations or agricultural productions. Eligible land includes cropland, rangeland, pasture, forest land, and other farm and ranch lands	EQIP can provide up to 75 percent of costs of certain conservation practices. Incentive payments can be up to 100 percent for 3 years, paid at a flat rate. The maximum is \$10,000 per person per year and \$50,000 over the length of the contract.
Forestry Incentives Program (FIP)	FIP supports good forest management practices on privately owned, nonindustrial forest lands nationwide. FIP is designed to benefit the environment while meeting future demands for wood products. Eligible practices are tree planting, timber stand improvement, site preparation for natural regeneration, and other related activities. FIP's forest maintenance and reforestation provides numerous natural resource benefits, including reduced soil erosion and enhanced water quality and wildlife habitat. Land must be suitable for conversion from nonforest to forest land, for reforestation, or for improved forest management and be capable of producing marketable timber crops.	Private landowner of at least 10 acres and no more than 1,000 acres of nonindustrial forest or other suitable land. Individuals, groups, Indian Tribes, and corporations whose stocks are not publicly traded might be eligible provided they are not primarily manufacturing forest products or providing public utility services.	FIP provides no more than 65 percent of the total costs, with a maximum of \$10,000 per person per year.
Small Watershed Program	This program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 or fewer acres. Technical and financial assistance is available for installation of works of improvement to protect, develop, and utilize the land and water resources in small watersheds.	Local or State agency, county, municipality, town or township, soil and water conservation district, flood prevention or flood control district, Indian Tribe or Tribal organization, or nonprofit agency with authority to carry out, maintain, and operate watershed improvement works	Assistance can cover 100 percent of flood prevention construction costs; 50 percent of construction costs related to agricultural water management, recreation and fish and wildlife; and none of the costs for other municipal and industrial water management. Technical assistance and counseling may also be provided.

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
Wetlands Reserve Program (WRP)	The Wetlands Reserve Program (WRP) is a voluntary program to restore and protect wetlands on private property. WRP provides landowners with financial incentives to enhance wetlands in exchange for retiring marginal agricultural land. Landowners may sell a conservation easement or enter into a cost-share restoration agreement. Landowners voluntarily limit future use of the land, yet retain private ownership. Landowners and the NRCS develop a plan for the restoration and maintenance of the wetland.	The easement participant must have owned the land for at least 1 year. An owner can be an individual, partnership, association, corporation, estate, trust, business or other legal entities, a State (when applicable), political subdivision of a State, or any agency thereof owning private land. Land must be restorable and suitable for wildlife benefits.	WRP provides three options to the landowner: <i>Permanent Easement</i> : USDA purchases easement (price is lesser of land value or payment cap.) USDA pays 100 percent of restoration costs. <i>30-year Easement</i> : Payment will be 75 percent of what would be paid for a permanent easement. USDA pays 75 percent of restoration costs. <i>Restoration Cost Share Agreement</i> : Agreement (min. 10 yr.) to restore degraded wetland habitat. USDA pays 75 percent of restoration costs.
Wildlife Habitat Incentives Program (WHIP)	WHIP is a voluntary program for people who want to develop and improve wildlife habitat on private land. It provides both technical assistance and cost sharing to help establish and improve fish and wildlife habitat. A wildlife habitat plan is developed that describes the landowner's goals for improving wildlife habitat, includes a list of practices and schedule for installing them, and details the steps necessary for maintenance.	Individuals must own or have control of the land under consideration, and cannot have the land already enrolled in programs that have a wildlife focus, such as the WRP, or use the land for mitigation.	USDA will pay up to 75 percent of installation costs and will provide technical assistance for successfully establishing habitat development projects.
Resource Conservation and Development Program (RC&D)	RC & D provides a way for local residents to work together and plan how they can actively solve environmental, economic, and social problems facing their communities. Assistance is available for planning and installation of approved projects specified in RC&D area plans, for land conservation, water management, community development, and environmental enhancement.	Must be an RC&D area authorized by the Secretary of Agriculture for assistance	Technical assistance Grants (as funding allows) up to 25 percent of total cost not to exceed \$50,000. Financial assistance has not been available in recent years due to budget constraints. Local or State government must provide 10 percent of total cost and are also responsible for operation and maintenance.

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
Watershed Surveys and Planning	This program provides planning assistance to Federal, State and local agencies for the development of coordinated water and related land resources programs in watershed and river basins. Special priority is given to projects helping to solve problems of upstream rural community flooding, water quality improvement coming from agricultural nonpoint sources, wetland preservation, and drought management for agricultural and rural communities.	State, Federal, Indian tribes, or local agencies	Technical assistance is provided. Each cooperating agency is expected to fund its own participation.
Emergency Watershed Protection (EWP) Program	The EWP Program was set up to respond to emergencies created by natural disasters. All EWP work must reduce threats to life and property. It must be economically and environmentally defensible. EWP work can include a wide variety of measures ranging from reshaping and protecting eroded banks to reseeding damaged areas.	Public and private landowners are eligible for assistance but must be represented by a project sponsor who must be a public agency.	NRCS can fund up to 75 percent of total cost.
<b>U.S. FOREST SERVICE</b>			
Cooperative Forestry Assistance	Cooperative Forestry Assistance helps State Foresters or equivalent agencies with forest stewardship programs on private, State, local, and other non-Federal forest and rural lands, plus rural communities and urban areas. This assistance is provided through the following programs: Forest Stewardship Program, Stewardship Incentive Program, Economic Action Programs, Urban and Community Forestry Program, Cooperative Lands Forest Health Protection Program, and Cooperative Lands Fire Protection Program. These programs help to achieve ecosystem health and sustainability by improving wildlife habitat, conserving forest land, reforestation, improving soil and water quality, preventing and suppressing damaging insects and diseases, wildfire protection, expanding economies of rural communities, and improving urban environments.	State Forester or equivalent State agency can receive moneys. State agencies can provide these moneys to owners of non-Federal lands, rural communities, urban/municipal governments, nonprofit organizations, and State, local, and private agencies acting through State Foresters or equivalent.	Formula grants, project grants, and cost share programs are available as well as use of property and facilities.

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
Stewardship Incentive Program	The Stewardship Incentive Program provides technical and financial assistance to encourage nonindustrial private forest landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Indian tribe, or other legal private entity.	Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land. Authorizations may be obtained for exceptions of up to 5,000 acres.	Technical or financial assistance can be provided.
<b>U.S. FISH AND WILDLIFE SERVICE</b>			
Coastal Wetlands Planning, Protection, and Restoration Act	This program provides funds to assist States in pursuing coastal wetland conservation projects. Funds can be used for acquisition of interests in coastal lands or waters, and for restoration, enhancement, or management of coastal wetland ecosystems on a competitive basis with all coastal states.	All States bordering the Atlantic, Gulf and Pacific coasts, Great Lakes and other U.S. coastal territories	Project grants. Federal share of costs not to exceed 50 percent; Federal share may be increased to 75 percent if a coastal State has established a fund (1) for the acquisition of coastal wetlands, other natural areas, or open spaces, or (2) derived from a dedicated recurring source of moneys.
Partners for Wildlife Habitat Restoration Program	The Partners for Wildlife Program provides technical and financial assistance to private landowners through voluntary cooperative agreements in order to restore formerly degraded wetlands, native grasslands, riparian areas, and other habitats to conditions as natural as feasible. Under cooperative agreements, private landowners agree to maintain restoration projects as specified in the agreement but otherwise retain full control of the land. To date, the Partners for Wildlife Program has restored over 360,000 acres of wetlands, 128,000 acres of prairie grassland, 930 miles of riparian habitat, and 90 miles of in-stream aquatic habitat.	Private landowners (must enter into a cooperative agreement for a fixed term of at least 10 years)	Project grants (cooperative agreements) are provided. Program's goal is that no more than 60 percent of project cost is paid by Federal moneys (the program seeks remainder of cost share from landowners and nationally-based and local entities).

PROGRAM	OVERVIEW	ELIGIBILITY	ASSISTANCE PROVIDED
Wildlife Conservation and Appreciation Program	The Wildlife Conservation and Appreciation Program provide grants to fund projects that bring together USFWS, State agencies, and private organizations and individuals. Projects include identification of significant problems that can adversely affect fish and wildlife and their habitats; actions to conserve species and their habitats; actions that will provide opportunities for the public to use and enjoy fish and wildlife through nonconsumptive activities; monitoring of species; and identification of significant habitats.	State fish and wildlife agencies	Project grants are provided.
North American Wetlands Conservation Act (NAWCA) Grant Program	The NAWCA grant program promotes long-term conservation of North American wetland ecosystems. Principal conservation actions supported by NAWCA are acquisition, enhancement and restoration of wetlands and wetlands-associated habitat.	Public or private, profit or nonprofit entities or individuals establishing public-private sector partnerships	Project grants (cooperative agreements and contracts) are provided. Cost-share partners must at least match grant funds 1:1 with U.S. non-federal dollars.
<b>U.S. ARMY CORPS OF ENGINEERS</b>			
Planning Assistance to States Program	The USACE to assist States, Indian Tribes local governments, and other non-Federal entities in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources under this program. The program can encompass many types of studies dealing with water resources issues. Typical studies are only planning level of detail. Types of studies conducted in recent years include water quality studies, flood plain management, environmental conservation, and many others.	States, Indian Tribes local governments, and other non-Federal entities	Federal allotments for each State or Tribe from the nation-wide appropriation are limited to \$500,000 annually.

**Appendix WW.** Special Exemption Permits for Community Water Supplies in the Rock River Basin

CWS Number	CWS Name	Waiver Type	Waiver Status
IL0730050	ALPHA	SOC and VOC	Approved
IL0730150	ANNAWAN	SOC Only	Approved
IL2015225	ANNS MHP	SOC and VOC	Approved
IL0075050	AQUA ILLINOIS-CANDLEWICK DVN	SOC and VOC	Approved
IL1035100	AQUA ILLINOIS-WOODHAVEN	SOC and VOC	Approved
IL1030100	ASHTON	SOC and VOC	Approved
IL2015050	BRADLEY HEIGHTS SUBDIVISION	SOC and VOC	Approved
IL0110100	BUDA	SOC and VOC	Approved
IL0735000	BUYSSE SUBDIVISION	SOC and VOC	Approved
IL0730300	CAMBRIDGE	SOC and VOC	Approved
IL1610100	CARBON CLIFF	SOC and VOC	Approved
IL1610100	CARBON CLIFF	SOC Only	Approved
IL1770050	CEDARVILLE	SOC and VOC	Approved
IL0150050	CHADWICK	SOC Only	Approved
IL1615120	CHERRY DALE SUBDIVISION	SOC and VOC	Approved
IL2010050	CHERRY VALLEY	SOC and VOC	Approved
IL2010050	CHERRY VALLEY	SOC Only	Approved
IL2015425	CLARKS MHP	SOC and VOC	Approved
IL1614260	COAL VALLEY	SOC Only	Approved
IL0370051	CORTLAND	SOC and VOC	Approved
IL0375125	CORTLAND CORNERS MHP	SOC and VOC	Approved
IL1415220	COUNTRY VIEW ESTATES SUBDIVISION	SOC and VOC	Approved
IL1410150	CRESTON	SOC Only	Approved
IL1615250	CROPPERS 1ST 4TH AND 5TH ADDITION	SOC and VOC	Approved
IL1770100	DAKOTA	SOC and VOC	Approved
IL1410030	DAVIS JUNCTION	SOC and VOC	Approved
IL0370100	DE KALB	SOC and VOC	Approved
IL0370100	DE KALB	SOC Only	Approved
IL1030200	DIXON	SOC and VOC	Approved
IL1035500	DIXON CORRECTIONAL CENTER	SOC and VOC	Approved
IL0375150	DONNY BROOK ESTATES SUBDIVISION	SOC and VOC	Approved
IL2010100	DURAND	SOC and VOC	Approved
IL1610140	EAST END WATER ASSOCIATION	SOC and VOC	Approved
IL1615100	EAST LAWN WATER ASSOCIATION	SOC and VOC	Approved
IL1615310	EVERGREEN VILLAGE SUBDIVISION	SOC and VOC	Approved
IL1615350	FAIRACRES ASSOCIATION	SOC and VOC	Approved
IL1410200	FORRESTON	SOC and VOC	Approved
IL1410200	FORRESTON	SOC Only	Approved
IL2015495	GEM SUBURBAN MHP	SOC and VOC	Approved



**Appendix WW.** Special Exemption Permits for Community Water Supplies in the Rock River Basin

CWS Number	CWS Name	Waiver Type	Waiver Status
IL0370150	GENOA	SOC and VOC	Approved
IL1615400	GLENDALE WATER ASSOCIATION	SOC Only	Approved
IL2015488	GREAT OAKS AND BEACON HILLS APARTMENTS	SOC and VOC	Approved
IL1030300	HARMON	SOC and VOC	Approved
IL1110250	HARVARD	SOC and VOC	Approved
IL0735350	HAZELWOOD 4TH ADDITION	SOC and VOC	Approved
IL0735250	HAZELWOOD WEST SUBDIVISION	SOC and VOC	Approved
IL0730080	HICKORY HILLS 2ND ADDITION WATER ASSN	SOC and VOC	Approved
IL1615530	HILLSDALE MHP	SOC and VOC	Approved
IL1110350	HUNTLEY	SOC and VOC	Approved
IL1110350	HUNTLEY	SOC Only	Approved
IL1955040	IL AMERICAN-STERLING	SOC and VOC	Approved
IL1615520	INDIAN BLUFFS SUBDIVISION	SOC and VOC	Approved
IL0730650	KEWANEE	SOC and VOC	Approved
IL0370250	KINGSTON	SOC and VOC	Approved
IL0370250	KINGSTON	SOC Only	Approved
IL0370300	KIRKLAND	SOC and VOC	Approved
IL1415250	KNOLLS EDGE SUBDIVISION	SOC and VOC	Approved
IL1110400	LAKE IN THE HILLS	SOC Only	Approved
IL1955150	LAKEVIEW HILLS WATER SUPPLY COMPANY	SOC and VOC	Approved
IL0150100	LANARK	SOC and VOC	Approved
IL2015290	LARCHMONT SUBDIVISION	SOC and VOC	Approved
IL1615728	LARSON COURT APARTMENTS	SOC and VOC	Approved
IL1410300	LEAF RIVER	SOC and VOC	Approved
IL2015300	LEGEND LAKES WATER ASSOCIATION	SOC and VOC	Approved
IL1770300	LENA	SOC and VOC	Approved
IL1415300	LINDENWOOD WATER ASSOCIATION	SOC and VOC	Approved
IL1950300	LYNDON	SOC and VOC	Approved
IL0735280	LYNWOOD 3RD ADDITION	SOC and VOC	Approved
IL1315150	M C L W SYSTEM, INC.	SOC and VOC	Approved
IL0370350	MALTA	SOC and VOC	Approved
IL0110600	MANLIUS	SOC Only	Approved
IL0075289	MAPLE CREST NH	SOC and VOC	Approved
IL1610400	MILAN	SOC and VOC	Approved
IL0150150	MILLEDGEVILLE	SOC and VOC	Approved
IL1950350	MORRISON	SOC Only	Approved
IL1410350	MOUNT MORRIS	SOC and VOC	Approved
IL1415185	MOUNT MORRIS ESTATES MHP	SOC Only	Approved
IL1415330	NORDIC WOODS SUBDIVISION	SOC and VOC	Approved

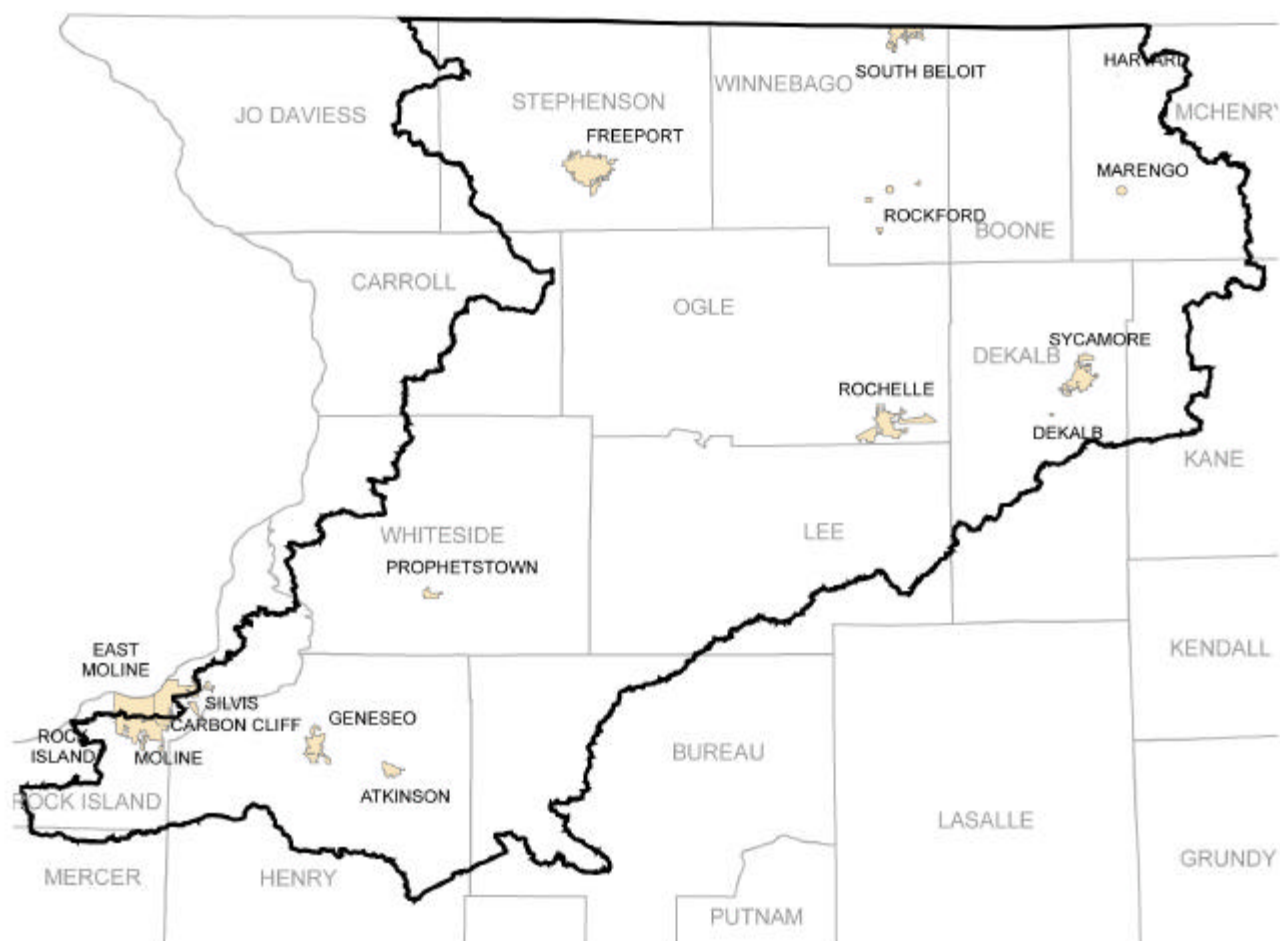
**Appendix WW. Special Exemption Permits for Community Water Supplies in the Rock River Basin**




CWS Number	CWS Name	Waiver Type	Waiver Status
IL0735850	NORTH HAZELWOOD SBDV	SOC and VOC	Approved
IL2015500	NORTH PARK PWD	SOC and VOC	Approved
IL0075275	OAK LAWN MHP	SOC and VOC	Approved
IL0730070	OAKWOOD WEST SUBDIVISION	SOC and VOC	Approved
IL1770350	ORANGEVILLE	SOC and VOC	Approved
IL2015320	OTTER CREEK LAKE UTILITIES DISTRICT	SOC and VOC	Approved
IL1617665	PARADISE MANOR MHP	SOC and VOC	Approved
IL0075235	PARK MEADOWLAND WEST MHP	SOC and VOC	Approved
IL1950400	PROPHETSTOWN	SOC and VOC	Approved
IL1615580	RAINBOW RIDGE	SOC and VOC	Approved
IL0735425	RIVERVIEW MHP (HENRY COUNTY)	SOC and VOC	Approved
IL1410500	ROCHELLE	SOC and VOC	Approved
IL1770500	ROCK CITY	SOC and VOC	Approved
IL1950450	ROCK FALLS	SOC Only	Approved
IL2010300	ROCKFORD	SOC Only	Approved
IL2010350	ROCKTON	SOC and VOC	Approved
IL1415350	ROCKVALE CORPORATION	SOC and VOC	Approved
IL1415265	ROLLING MEADOWS MHP	SOC and VOC	Approved
IL0735500	RUSTIC ACRES WATER ASSOCIATION	SOC and VOC	Approved
IL1610700	SILVIS	SOC and VOC	Approved
IL1775235	STEPHENSON MOBILE ESTATES	SOC and VOC	Approved
IL1410550	STILLMAN VALLEY	SOC and VOC	Approved
IL0850450	STOCKTON	SOC and VOC	Approved
IL0735300	SUNNY HILL ESTATES SUBDIVISION	SOC and VOC	Approved
IL0735450	TIMBER BROOK ESTATES	SOC and VOC	Approved
IL1775255	TIMBER RIDGE MOBILE ESTATES	SOC and VOC	Approved
IL0735470	TIMBER RIDGE SBDV	SOC and VOC	Approved
IL2015745	TIMBERLANE MHP	SOC and VOC	Approved
IL1110900	UNION	SOC and VOC	Approved
IL2015160	UTL INC-COVENTRY CREEK SUBDIVISION	SOC and VOC	Approved
IL2015150	UTL INC-COVENTRY HILLS UTILITIES, INC.	SOC and VOC	Approved
IL1775050	UTL INC-NORTHERN HILLS UTILITIES COMPANY	SOC and VOC	Approved
IL0375200	VALLEY VIEW SUBDIVISION (DEKALB)	SOC and VOC	Approved
IL0111100	WALNUT	SOC and VOC	Approved
IL1615130	WATER WERKS	SOC and VOC	Approved
IL2015400	WILDWOOD UTILITIES COMPANY	SOC and VOC	Approved
IL0730040	WINDCREST SUBDIVISION	SOC and VOC	Approved
IL2010500	WINNEBAGO	SOC and VOC	Approved
IL1770550	WINSLOW	SOC and VOC	Approved

**Appendix WW.** Special Exemption Permits for Community Water Supplies in the Rock River Basin

CWS Number	CWS Name	Waiver Type	Waiver Status
IL1415050	WOODLAWN UTILITIES CORPORATION	SOC and VOC	Approved
IL0730200	ATKINSON	SOC and VOC	Denied
IL2010450	ALLIANT ENERGY-SOUTH BELOIT	SOC Only	Pending
IL1030050	AMBOY	SOC and VOC	Pending
IL2015100	BALCITIS PUMP CORP	SOC Only	Pending
IL0375148	DE KALB UNIV DVL CORP	SOC and VOC	Pending
IL1035269	NACHUSA LUTHERAN HOME	SOC and VOC	Pending
IL1410400	OREGON	SOC and VOC	Pending
IL1410400	OREGON	SOC Only	Pending
IL1410450	POLO	SOC and VOC	Pending
IL0370550	SYCAMORE	SOC and VOC	Pending
IL1410250	HILLCREST	SOC Only	Revoked
IL1110350	HUNTLEY	SOC Only	Revoked
IL1617649	OAK GLEN NURSING HOME	SOC Only	Revoked
IL1770400	PEARL CITY	SOC and VOC	Revoked
IL2010300	ROCKFORD	SOC Only	Revoked

## Appendix XX. Groundwater Restricted Use Ordinances in the Rock River Basin.



-  Groundwater Restricted Use Ordinances
-  County Boundary
-  Rock River Basin



Illinois EPA

Source Information  
Watershed Boundaries from Illinois State Water Survey.  
Groundwater Ordinances from Illinois EPA.

Name
CARBON CLIFF
FREEPORT
PROPHETSTOWN
EAST MOLINE
MOLINE
DEKALB
MARENGO
ROCK ISLAND
HARVARD
ROCKFORD
SILVIS
SOUTH BELOIT
SYCAMORE
ROCHELLE
GENESEO
ATKINSON

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
<b>ROCK RIVER BASIN (0709)</b>			
<b>UPPER ROCK RIVER WATERSHED</b>	<b>0709001</b>		
ROCK RIVER MAIN STEM		21	
Rockton			05
TURTLE CREEK		23	
Little Turtle Creek			01
South Beloit			06
<b>PECATONICA RIVER WATERSHED</b>	<b>07090003</b>		
INDIANA CREEK		10	
Indian Creek			01
Cedar Creek			03
SPAFFORD CREEK		11	
Spafford Creek			22
Spafford Creek			08
PECATONICA RIVER MAIN STEM		13	
Lake Le-Aqua-Na			02
Spring Creek			04
Upper Pecatonica River			05
Muddy Creek			06
RICHLAND - CEDAR CREEKS		14	
Richland Creek			17
Cedar Creek			18
ROCK RUN		15	
Upper Rock Run			19
Lower Rock Run			20
Pink Creek			13
RACCOON CREEK		17	
Raccoon Creek			04
YELLOW CREEK		18	
Lost Creek			07
Yellow Creek			26
Lost Creek			01
Grove Creek			02
Upper Yellow Creek			07
Lower Yellow Creek			12
Crane Gove Creek			13
PECATONICA RIVER MAIN\		19	
Winnesheik Creek			14
Silver Creek			15
Sugar Creek			03
Middle Pecatonica River			09
Gleason Creek			10
Beaver Run			14
Tunnison Creek			15
Lower Pecatonica River			18
Coolidge Creek			19
Grove Creek			25
<b>SUGAR CREEK BASIN</b>	<b>07090004</b>		
SUGAR CREEK MAINSTEM		05	

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
<b>ROCK RIVER BASIN (0709)</b>			
Sugar River			02
OTTER CREEK		06	
Otter Creek - Lake Sommerset			21
North Fork Otter Creek			01
Otter Creek			08
<b>ROCK RIVER WATERSHED</b>	<b>07090005</b>		
ROCK RIVER MAIN STEM		01	
Dry Creek			02
North - South Dinnikinnick Creek			03
McDonal Creek			04
Willow Creek			05
Keith Creek			06
Dry Run Creek			07
Mud Creek			11
Kinnikinnick Creek			12
Willow Creek			16
McDonald Creek			17
Kent Creek			20
South Fork Kent Creek			21
Spring - Keith Creeks			22
ROCK RIVER MAIN STEM		02	
West Mill Creek			05
East Mill Creek			06
Silver Creek			15
Scott School			24
Woodland Creek			27
Black Walnut Creek			28
Lower Stillman Creek			29
Spring Creek			31
Upper Stillman Creek			32
Bebb's Creek			24
Middle Creek			26
Lower Meridian Basin			27
Fullers Creek			28
Rockford Basin			29
Lower Rock River			31
LEAF RIVER		03	
Leaf River			08
Mud Creek			03
Otter Creek			04
Upper Leaf River			07
Middle Leaf River			08
South Middle Leaf River			10
Lower Leaf River			11
Mud Creek			16
<b>ROCK RIVER WATERSHED (Continued)</b>	<b>07090005</b>		
LEAF RIVER		03	
Upper Leaf River			22
Otter Creek			24

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
<b>ROCK RIVER BASIN (0709)</b>			
PINE CREEK		04	
West Pine Creek			13
East Pine Creek			14
Middle Pine Creek			20
Lower Pine Creek			23
KYTE RIVER		05	
Steward			13
Upper Kyte River			10
Beach Creek			11
Lower Steward Creek			12
North Steward Creek			13
South Steward Creek			14
Lower Kyte River			34
Honey Creek			35
Middle Kyte River			36
Upper Kyte River			37
South Lower Kyte River			40
ROCK RIVER MAIN STEM		06	
Seven Mile Branch			03
Clear Creek			04
Franklin Creek			05
Rock River			06
Five Mile Branch			07
Three Mile Branch			08
Seven Mile Branch			19
Gale Creek			21
Penn Corner			22
Cair Creek			38
Clear Creek			39
Rock River North			35
Rock River South			36
ELKHORN CREEK		07	
West Fork Elkhorn Creek			17
Elkhorn Creek			18
Jordan Creek			01
Sugar Creek			02
West Elkhorn Creek			09
East Elkhorn Creek			12
Goose Creek			16
Buffalo Creek			17
Reid Creek			18
Elkhorn Creek			24
Buffalo Creek			25
<b>ROCK RIVER WATERSHED (Continued)</b>	<b>07090005</b>		
ROCK RIVER MAIN STEM		08	
Jordan Creek			26
Sugar Creek			27
Spring Creek			28
Lakeview Lake			29

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
<b>ROCK RIVER BASIN (0709)</b>			
Deer Creek			30
East Mt. Pleasant Creek			31
Lyndon Ditch			32
Rock River - Lower			33
Rock River - Upper			34
COUNTY DITCH #1		09	
Harmon Coon Creek			09
County Ditch #1			37
County Ditch #2			38
ROCK CREEK		10	
Little Rock Creek			14
Rock Creek			15
Otter Creek			16
Little Rock Creek			10
Rock Creek			11
Otter Creek			12
Little Spring Creek			13
Lake Carlton			14
French Creek			15
Lynn Creek			16
ROCK RIVER MAIN STEM		11	
Oxbow Slough			04
Shadow Lake			05
Big Rock			06
Little Meridosia			14
Canoe Creek			15
Zuma Creek			16
Barstow Drainage			17
West Newton Ditch			17
Newton Ditch			18
Mineral Springs Creek			19
Oxbow Slough			22
Shadow Lake			23
ROCK RIVER MAIN STEM		12	
Shaffer Creek			01
Sunny Hill Watershed			02
Rock River			03
Shaffer Creek			18
Coal Creek			19
Case Creek			20
South Quad Cities			21
<b>ROCK RIVER WATERSHED (Continued)</b>	<b>07090005</b>		
MILL CREEK		13	
Sherrard Creek			07
Reynolds Creek			08
Lower Mill Creek			22
Upper Mill Creek			23
<b>KISWAUKEE RIVER WATERSHED</b>	<b>07090006</b>		
BEAVER CREEK		01	



## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
<b>ROCK RIVER BASIN (0709)</b>			
Upper Beaver Creek			07
Middle Creek			08
Lower Beaver Creek - Candlewick Lake			09
Rote Basin			23
PISCASAW CREEK		02	
Upper Piscasaw Creek			10
Geryune Creek			11
Lower Piscasaw Creek			12
Piscasaw Creek			01
Geryune Creek			02
KISHWAUKEE RIVER MAINSTEM		03	
Mud Creek			15
Eakin Creek			01
Rush Creek			08
North Branch Kishwaukee River			09
Lower Kishwaukee River			10
Upper Kishwaukee River			11
South Branch Kishwaukee River			12
KISHWAUKEE RIVER MAINSTEM		04	
Northwest Kishwaukee River			13
Southwest Kishwaukee River			14
Madigan Creek			30
Kishwaukee River West			32
COON - MOSQUITO CREEKS		05	
Coon - Mosquito - Spring Creeks			16
Coon Creek			11
Coon Creek			02
Coon Creek			17
SOUTH BRANCH KISHWAUKEE RIVER		06	
Kingsbury Creek			17
South Branch Kishwaukee River			18
Lower Kishwaukee River			01
Kingsbury			02
Middle Kishwaukee River			03
Deer Creek			04
Upper Kishwaukee River			05
Owens Creek			06
Lower South Kishwaukee River			07
Upper South Kishwaukee River			08
<b>KISWAUKEE RIVER WATERSHED (Continued)</b>	<b>07090006</b>		
SOUTH BRANCH KISHWAUKEE RIVER		06	
Kishwaukee River			26
Kishwaukee River East			34
EAST BRANCH KISHWAUKEE RIVER		07	
Lower East Kishwaukee River			09
Upper East Kishwaukee River			10
Union Ditch			03
KILBUCK CREEK		08	
Kilbuck Creek			12

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
ROCK RIVER BASIN (0709)			
Kilbuck Creek			15
Lower Kilbuck Creek			25
Middle Kilbuck Creek			30
Upper Kilbuck Creek			33
Kilbuck Creek			33
<b>GREEN RIVER WATERSHED</b>	<b>7090007</b>		
GREEN RIVER MAIN STEM		01	
Lee			14
Lee Center			27
Inlet Creek			28
Shady Oaks Creek			29
McLugins Grove			30
Upper Willow Creek			31
Upper Green River			32
Lower Willow Creek			33
GREEN RIVER MAIN STEM		02	
Green River			03
Walnut Special Ditch			04
Red Oak Ditch			05
Winnebago			19
Riverview Creek			20
Morman			21
Coon Creek			22
Bluestem Creek			23
Red Oak Creek			24
Hanamahn Creek			25
Walton			26
Winnebago Ditch			39
Green River			40
MUD CREEK		03	
Smith - Hickory Creeks			10
Mineral Marsh - Lower Hickory Creek			17
King Creek			18
Coal Creek			19
South Hickory Creek			20
Mud Creek			25
Coal Creek			17
<b>GREEN RIVER WATERSHED (Continued)</b>	<b>7090007</b>		
MUD CREEK		03	
King Creek			18
Mud - Walker Creeks			19
Annawan Watershed			20
GREEN RIVER MAIN STEM		04	
Fairfield Ditch			01
Union Special Ditch			02
Bureau County Ditch			09
Main Union Special Ditch			14
Central Special Ditch			15
Harrison - Kuhn Ditches			16

## Appendix YY. River Basins, Watersheds and Hydrologic Units of the Rock River Basin

NAME	WATERSHED	SUBWATERSHED	HUC12
ROCK RIVER BASIN (0709)			
Main Union Specail Ditch			41
Central Special Ditch - Wildcat Creek			42
Union Special Ditch			43
GREEN RIVER MAIN STEM		05	
Spring Creek			10
Spring - Oat Creeks			11
Green River			12
Big Slough			13
Big Slough			44
GREEN RIVER MAIN STEM		06	
Geneseo Creek - Green River			07
Mineral Creek			08
Mosquito - Turner Creeks			09

## **Appendix ZZ. Prime Farmland Definition and County Totals**

### **Full Definition of Prime Farmland**

**Currently, the USDA-NRCS identifies Prime Farmland in Illinois with the following criteria:**

- A.** The soils have sufficient available water capacity within the depth of 40 inches, or in the root zone if it is less than 40 inches deep, (a minimum of 4 inches of available water in the upper 40 inches), to produce the commonly grown crops 7 or more years out of 10.
- B.** The soils have a mean annual soil temperature at a depth of 20 inches higher than 32 degrees Fahrenheit. In addition, the mean summer temperature at 20 inches is higher than 59 degrees.
- C.** The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep.
- D.** The soils have no water table or a water table that is maintained at a sufficient depth to allow crops common to the area to be grown.
- E.** The soils have in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep, an exchangeable sodium percentage of less than 15.
- F.** The soils flood less often than once in two years during the growing season.
- G.** The soils have a product K (erodibility factor) X percent slope of less than 2.0.
- H.** The soils have a permeability rate of at least 0.006 inches per hour in the upper 20 inches.
- I.** Less than ten percent of the surface layer in these soils consists of rock fragments coarser than three inches.

## Appendix ZZ. Prime Farmland Definition and County Totals

Winnebago and Boone Counties, Illinois

Print date: 02/22/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
21B	Pecatonica silt loam, 2 to 5 percent slopes-----	8,763	1.7
22B	Westville silt loam, 2 to 5 percent slopes-----	757	0.1
27B	Miami silt loam, 1 to 5 percent slopes-----	5,241	1
36A	Tama silt loam, 0 to 2 percent slopes-----	1,945	0.4
36B	Tama silt loam, 2 to 5 percent slopes-----	14,218	2.8
41	Muscatine silt loam-----	5,331	1
59	Lisbon silt loam-----	3,647	0.7
61	Atterberry silt loam (Prime farmland if drained)-----	7,228	1.4
62	Herbert silt loam (Prime farmland if drained)-----	1,898	0.4
68	Sable silty clay loam (Prime farmland if drained)-----	13,038	2.5
82	Millington silt loam (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	3,057	0.6
102	La hogue silt loam-----	7,655	1.5
104	Virgil silt loam (Prime farmland if drained)-----	4,689	0.9
107	Sawmill silty clay loam (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	3,331	0.6
119B	Elco silt loam, 2 to 6 percent slopes-----	488	*
125	Selma loam (Prime farmland if drained)-----	13,246	2.6
145B	Saybrook silt loam, 2 to 5 percent slopes-----	3,799	0.7
146	Elliott silt loam-----	774	0.2
152	Drummer silty clay loam (Prime farmland if drained)-----	19,799	3.9
172	Hoopeston sandy loam-----	1,233	0.2
188	Beardstown loam (Prime farmland if drained)-----	4,235	0.8
197	Troxel silt loam-----	3,593	0.7
198	Elburn silt loam-----	5,780	1.1
199A	Plano silt loam, 0 to 2 percent slopes-----	3,775	0.7
199B	Plano silt loam, 2 to 5 percent slopes-----	9,765	1.9
221B	Parr silt loam, 2 to 5 percent slopes-----	8,427	1.6
223B	Varna silt loam, 2 to 6 percent slopes-----	2,707	0.5
227B	Argyle silt loam, 2 to 6 percent slopes-----	2,343	0.5
242	Kendall silt loam (Prime farmland if drained)-----	9,534	1.9
243A	St. charles silt loam, 0 to 2 percent slopes-----	4,161	0.8
243B	St. charles silt loam, 2 to 5 percent slopes-----	6,979	1.4
259B2	Assumption silt loam, 2 to 6 percent slopes, eroded-----	1,163	0.2
278	Stronghurst silt loam-----	5,087	1
279A	Rozetta silt loam, 0 to 3 percent slopes-----	6,059	1.2
280B	Fayette silt loam, 2 to 5 percent slopes-----	4,386	0.9
290A	Warsaw loam, 0 to 2 percent slopes-----	5,686	1.1
290B	Warsaw loam, 2 to 5 percent slopes-----	1,359	0.3
293	Andres silt loam-----	1,178	0.2
297B	Ringwood silt loam, 2 to 5 percent slopes-----	541	0.1
310B	Mchenry silt loam, 2 to 5 percent slopes-----	1,409	0.3
327B	Fox loam, 1 to 5 percent slopes-----	168	*
329	Will loam (Prime farmland if drained)-----	1,722	0.3

## Appendix ZZ. Prime Farmland Definition and County Totals

332A	Billett sandy loam, 0 to 2 percent slopes-----	609	0.1
332B	Billett sandy loam, 2 to 6 percent slopes-----	2,469	0.5
343	Kane silt loam-----	1,054	0.2
361B	Kidder loam, 2 to 5 percent slopes-----	651	0.1
363B	Griswold sandy loam, 2 to 5 percent slopes-----	4,238	0.8
369	Waupecan silt loam-----	5,760	1.1
379A	Dakota silt loam, 0 to 3 percent slopes-----	4,005	0.8
386A	Downs silt loam, 0 to 2 percent slopes-----	1,581	0.3
386B	Downs silt loam, 2 to 6 percent slopes-----	8,798	1.7
387A	Ockley silt loam, 0 to 2 percent slopes-----	879	0.2
387B	Ockley silt loam, 2 to 5 percent slopes-----	319	*
398A	Wea silt loam, 0 to 2 percent slopes-----	2,672	0.5
398B	Wea silt loam, 2 to 5 percent slopes-----	231	*
411B	Ashdale silt loam, 2 to 5 percent slopes-----	1,486	0.3
412B	Ogle silt loam, 2 to 5 percent slopes-----	13,627	2.7
415	Orion silt loam (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	4,000	0.8
419A	Flagg silt loam, 0 to 2 percent slopes-----	2,215	0.4
419B	Flagg silt loam, 2 to 5 percent slopes-----	11,417	2.2
429B	Palsgrove silt loam, 2 to 5 percent slopes-----	1,547	0.3
440A	Jasper silt loam, 0 to 2 percent slopes-----	5,195	1
440B	Jasper silt loam, 2 to 5 percent slopes-----	9,834	1.9
451	Lawson silt loam-----	3,806	0.7
490	Odell silt loam-----	4,503	0.9
506A	Hitt silt loam, 0 to 2 percent slopes-----	190	*
506B	Hitt silt loam, 2 to 5 percent slopes-----	1,368	0.3
566B	Rockton and dodgeville soils, 1 to 5 percent slopes-----	3,500	0.7
570A	Martinsville silt loam, 0 to 2 percent slopes-----	1,674	0.3
570B	Martinsville silt loam, 2 to 5 percent slopes-----	2,854	0.6
771	Hayfield loam-----	1,494	0.3
772	Marshan loam (Prime farmland if drained)-----	2,406	0.5
776	Comfrey loam (Prime farmland if drained)-----	16,884	3.3
780B	Grellt0n sandy loam, 1 to 5 percent slopes-----	1,274	0.2
781A	Friesland sandy loam, 0 to 2 percent slopes-----	554	0.1
781B	Friesland sandy loam, 2 to 6 percent slopes-----	3,023	0.6
782	Juneau silt loam-----	769	0.1
783A	Flagler sandy loam, 0 to 3 percent slopes-----	5,307	1
783B	Flagler sandy loam, 3 to 7 percent slopes-----	886	0.2
Total-----		343,273	67

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Bureau County

Bureau County, Illinois

Print date: 02/22/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
24B	Dodge silt loam, 2 to 5 percent slopes-----	1,785	0.3
51A	Muscataune silt loam, 0 to 2 percent slopes-----	40,310	7.2
59A	Lisbon silt loam, 0 to 2 percent slopes-----	2,375	0.4
61A	Atterberry silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	2,660	0.5
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	9,760	1.7
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	19,615	3.5
68A+	Sable silt loam, 0 to 2 percent slopes, overwash (Prime farmland if drained)-----	14,005	2.5
86A	Osco silt loam, 0 to 2 percent slopes-----	17,430	3.1
86B	Osco silt loam, 2 to 5 percent slopes-----	14,165	2.5
86B2	Osco silt loam, 2 to 5 percent slopes, eroded-----	43,275	7.7
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	985	0.2
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded-----	3,280	0.6
102A	La hogue loam, 0 to 2 percent slopes-----	735	0.1
104A	Virgil silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	605	0.1
105A	Batavia silt loam, 0 to 2 percent slopes-----	175	*
105B	Batavia silt loam, 2 to 5 percent slopes-----	480	*
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	8,870	1.6
134A	Camden silt loam, 0 to 2 percent slopes-----	135	*
134B	Camden silt loam, 2 to 5 percent slopes-----	705	0.1
145B	Saybrook silt loam, 2 to 5 percent slopes-----	7,105	1.3
145B2	Saybrook silt loam, 2 to 5 percent slopes, eroded-----	7,400	1.3
149A	Brenton silt loam, 0 to 2 percent slopes-----	1,305	0.2
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	17,640	3.2
153A	Pella silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	1,210	0.2
154A	Flanagan silt loam, 0 to 2 percent slopes-----	4,140	0.7
171B2	Catlin silt loam, 2 to 5 percent slopes, eroded-----	31,975	5.7
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	905	0.2
175B	Lamont fine sandy loam, 2 to 5 percent slopes-----	735	0.1
198A	Elburn silt loam, 0 to 2 percent slopes-----	9,580	1.7
199A	Plano silt loam, 0 to 2 percent slopes-----	5,070	0.9
199B	Plano silt loam, 2 to 5 percent slopes-----	2,750	0.5
199B2	Plano silt loam, 2 to 5 percent slopes, eroded-----	3,790	0.7
200A	Orio loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,985	0.7
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	345	*
233B	Birkbeck silt loam, 2 to 5 percent slopes-----	2,905	0.5
243A	St. charles silt loam, 0 to 2 percent slopes-----	340	*
243B	St. charles silt loam, 2 to 5 percent slopes-----	1,115	0.2
244A	Hartsburg silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	555	*
272A	Edginton silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	895	0.2
278A	Stronghurst silt loam, 0 to 2 percent slopes (Prime farmland if drained)-	1,340	0.2
279A	Rozetta silt loam, 0 to 2 percent slopes-----	3,175	0.6

## Appendix ZZ. Prime Farmland Definition and County Totals - Bureau County

279B	Rozetta silt loam, 2 to 5 percent slopes-----	15,110	2.7
290A	Warsaw loam, 0 to 2 percent slopes-----	390	*
290B	Warsaw loam, 2 to 5 percent slopes-----	550	*
290B2	Warsaw silt loam, 2 to 5 percent slopes, eroded-----	820	0.1
369A	Waupecan silt loam, 0 to 2 percent slopes-----	770	0.1
369B	Waupecan silt loam, 2 to 5 percent slopes-----	695	0.1
369B2	Waupecan silt loam, 2 to 5 percent slopes, eroded-----	1,085	0.2
440A	Jasper silt loam, 0 to 2 percent slopes-----	1,020	0.2
440B	Jasper silt loam, 2 to 5 percent slopes-----	810	0.1
485A	Richwood silt loam, 0 to 2 percent slopes-----	1,610	0.3
487A	Joyce silt loam, 0 to 2 percent slopes-----	2,680	0.5
488A	Hoopole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,415	0.6
541B2	Graymont silt loam, 2 to 5 percent slopes, eroded-----	180	*
549B2	Marseilles silt loam, 2 to 5 percent slopes, eroded-----	630	0.1
564A	Waukegan silt loam, 0 to 2 percent slopes-----	6,095	1.1
564B2	Waukegan silt loam, 2 to 5 percent slopes, eroded-----	10,320	1.8
565A	Tell silt loam, 0 to 2 percent slopes-----	480	*
565B	Tell silt loam, 2 to 5 percent slopes-----	565	0.1
570B	Martinsville silt loam, 2 to 5 percent slopes-----	1,235	0.2
622B2	Wyanet silt loam, 2 to 5 percent slopes, eroded-----	5,335	1
647A	Lawler loam, 0 to 2 percent slopes-----	2,745	0.5
671B	Biggsville silt loam, 2 to 5 percent slopes-----	4,180	0.7
671B2	Biggsville silt loam, 2 to 5 percent slopes, eroded-----	5,935	1.1
675A	Greenbush silt loam, 0 to 2 percent slopes-----	2,460	0.4
675B	Greenbush silt loam, 2 to 5 percent slopes-----	10,930	2
767A	Prophetstown silt loam, 0 to 2 percent slopes (Prime farmland if drained)	1,525	0.3
3480A	Moundprairie silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,130	0.2
7073A	Ross silt loam, 0 to 2 percent slopes, rarely flooded-----	1,865	0.3
7304A	Landes fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	1,940	0.3
8074A	Radford silt loam, 0 to 2 percent slopes, occasionally flooded-----	4,185	0.7
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash (Prime farmland if drained)-----	17,765	3.2
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	2,370	0.4
8179A	Minneiska loam, 0 to 2 percent slopes, occasionally flooded-----	5,600	1
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	8,865	1.6
8304A	Landes silt loam, 0 to 2 percent slopes, occasionally flooded-----	1,155	0.2
8451A	Lawson silt loam, 0 to 2 percent slopes, occasionally flooded-----	3,665	0.7
8492A	Normandy loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	1,690	0.3
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	1,675	0.3
Total-----		423,085	75.7
* Less tl			



## Appendix ZZ. Prime Farmland Definition and County Totals - Carroll County

Carroll County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
21B	Pecatonica silt loam, 2 to 5 percent slopes-----	121	*
37A	Worthen silt loam, 0 to 2 percent slopes-----	979	0.3
37B	Worthen silt loam, 2 to 5 percent slopes-----	1,521	0.5
37C	Worthen silt loam, 5 to 10 percent slopes-----	537	0.2
51A	Muscatune silt loam, 0 to 2 percent slopes-----	1,794	0.6
51B	Muscatune silt loam, 2 to 5 percent slopes-----	533	0.2
61A	Atterberry silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	1,418	0.5
61B	Atterberry silt loam, 2 to 5 percent slopes-----	532	0.2
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	199	*
68A+	Sable silt loam, 0 to 2 percent slopes, overwash (Prime farmland if drained)-----	205	*
81A	Littleton silt loam, 0 to 2 percent slopes-----	2,774	0.9
81B	Littleton silt loam, 2 to 5 percent slopes-----	788	0.3
86A	Oscos silt loam, 0 to 2 percent slopes-----	2,306	0.8
86B	Oscos silt loam, 2 to 5 percent slopes-----	43,234	14.5
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	1,342	0.4
87B	Dickinson sandy loam, 2 to 5 percent slopes-----	294	*
87C2	Dickinson sandy loam, 5 to 10 percent slopes, eroded-----	173	*
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	235	*
134A	Camden silt loam, 0 to 2 percent slopes-----	35	*
134B	Camden silt loam, 2 to 5 percent slopes-----	235	*
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	457	0.2
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	129	*
175B	Lamont fine sandy loam, 2 to 5 percent slopes-----	152	*
201A	Gilford fine sandy loam, 0 to 2 percent slopes (Prime farmland if drained)-----	151	*
227B	Argyle silt loam, 2 to 5 percent slopes-----	90	*
261A	Niota silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	720	0.2
268B	Mt. carroll silt loam, 2 to 5 percent slopes-----	234	*
272A	Edgington silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	942	0.3
274B	Seaton silt loam, 2 to 5 percent slopes-----	588	0.2
275A	Joy silt loam, 0 to 2 percent slopes-----	126	*
275B	Joy silt loam, 2 to 5 percent slopes-----	189	*
277B	Port byron silt loam, 2 to 5 percent slopes-----	2,726	0.9
279A	Rozetta silt loam, 0 to 2 percent slopes-----	34	*
279B	Rozetta silt loam, 2 to 5 percent slopes-----	266	*
280B	Fayette silt loam, 2 to 5 percent slopes-----	3,095	1
411B	Ashdale silt loam, 2 to 5 percent slopes-----	37	*
412B	Ogle silt loam, 2 to 5 percent slopes-----	726	0.2
414B	Myrtle silt loam, 2 to 5 percent slopes-----	64	*
419B	Flagg silt loam, 2 to 5 percent slopes-----	121	*
564B	Waukegan silt loam, 2 to 5 percent slopes-----	802	0.3
565B	Tell silt loam, 2 to 5 percent slopes-----	243	*

## Appendix ZZ. Prime Farmland Definition and County Totals - Carroll County

675A	Greenbush silt loam, 0 to 2 percent slopes-----	56	*	
675B	Greenbush silt loam, 2 to 5 percent slopes-----	4,548		1.5
764B	Coyne fine sandy loam, 2 to 5 percent slopes-----	271	*	
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,196		0.4
3082A	Millington silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	234	*	
3107+	Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	944		0.3
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,442		0.5
3333A	Wakeland silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	444		0.1
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	2,706		0.9
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	12,788		4.3
7076A	Otter silt loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	179	*	
7082A	Millington clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	118	*	
7107+	Sawmill silt loam, 0 to 2 percent slopes, rarely flooded, overwash (Prime farmland if drained)-----	186	*	
7107A	Sawmill silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	1,195		0.4
7415A	Orion silt loam, 0 to 2 percent slopes, rarely flooded-----	391		0.1
7451A	Lawson silt loam, 0 to 2 percent slopes, rarely flooded-----	723		0.2
7452A	Riley loam, 0 to 2 percent slopes, rarely flooded-----	619		0.2
8077A	Huntsville silt loam, 0 to 2 percent slopes, occasionally flooded-----	208	*	
8239A	Dorchester silt loam, 0 to 2 percent slopes, occasionally flooded-----	7,617		2.6
8239B	Dorchester silt loam, 2 to 5 percent slopes, occasionally flooded-----	158	*	
Total-----		107,170		35.9

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - DeKalb County

DeKalb County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
59A	Lisbon silt loam, 0 to 2 percent slopes-----	4,918	1.2
60C2	La rose loam, 5 to 10 percent slopes, eroded-----	2,469	0.6
62A	Herbert silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,564	1.1
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	5,985	1.5
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	623	0.2
104A	Virgil silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,970	0.7
148A	Proctor silt loam, 0 to 2 percent slopes-----	322	*
148B	Proctor silt loam, 2 to 5 percent slopes-----	54	*
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	42,583	10.5
154A	Flanagan silt loam, 0 to 2 percent slopes-----	57,007	14
171A	Catlin silt loam, 0 to 2 percent slopes-----	7,858	1.9
171B	Catlin silt loam, 2 to 5 percent slopes-----	35,898	8.8
193A	Mayville silt loam, 0 to 2 percent slopes-----	416	0.1
193B	Mayville silt loam, 2 to 5 percent slopes-----	8,932	2.2
198A	Elburn silt loam, 0 to 2 percent slopes-----	9,386	2.3
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	383	*
219A	Millbrook silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	2,042	0.5
221B2	Parr silt loam, 2 to 5 percent slopes, eroded-----	7,259	1.8
221C2	Parr silt loam, 5 to 10 percent slopes, eroded-----	8,076	2
233A	Birkbeck silt loam, 0 to 2 percent slopes-----	885	0.2
233B	Birkbeck silt loam, 2 to 5 percent slopes-----	377	*
236A	Sabina silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,325	0.3
325A	Dresden silt loam, 0 to 2 percent slopes-----	6	*
325B	Dresden silt loam, 2 to 4 percent slopes-----	275	*
325C2	Dresden silt loam, 4 to 6 percent slopes, eroded-----	412	0.1
327B	Fox silt loam, 2 to 4 percent slopes-----	117	*
330A	Peotone silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,845	0.7
344B	Harvard silt loam, 2 to 5 percent slopes-----	176	*
348A	Wingate silt loam, 0 to 2 percent slopes-----	855	0.2
348B	Wingate silt loam, 2 to 5 percent slopes-----	12,197	3
356A	Elpaso silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	65,011	16
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	565	0.1
512A	Danabrook silt loam, 0 to 2 percent slopes-----	1,433	0.4
512B	Danabrook silt loam, 2 to 5 percent slopes-----	56,035	13.8
527B	Kidami silt loam, 2 to 4 percent slopes-----	2,505	0.6
527C2	Kidami loam, 4 to 6 percent slopes, eroded-----	3,572	0.9
656B	Octagon silt loam, 2 to 4 percent slopes-----	2,594	0.6
656C2	Octagon silt loam, 4 to 6 percent slopes, eroded-----	3,740	0.9
662A	Barony silt loam, 0 to 2 percent slopes-----	1,252	0.3
662B	Barony silt loam, 2 to 5 percent slopes-----	2,365	0.6
663A	Clare silt loam, 0 to 2 percent slopes-----	553	0.1

## Appendix ZZ. Prime Farmland Definition and County Totals - DeKalb County

663B	Clare silt loam, 2 to 5 percent slopes-----	885	0.2
667A	Kaneville silt loam, 0 to 2 percent slopes-----	3,147	0.8
667B	Kaneville silt loam, 2 to 5 percent slopes-----	4,241	1
668A	Somonauk silt loam, 0 to 2 percent slopes-----	1,949	0.5
668B	Somonauk silt loam, 2 to 5 percent slopes-----	1,859	0.5
679B	Blackberry silt loam, 2 to 5 percent slopes-----	2,405	0.6
712A	Spaulding silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	78	*
715A	Arrowsmith silt loam, 0 to 2 percent slopes-----	1,276	0.3
791A	Rush silt loam, 0 to 2 percent slopes-----	262	*
791B	Rush silt loam, 2 to 4 percent slopes-----	316	*
792A	Bowes silt loam, 0 to 2 percent slopes-----	582	0.1
792B	Bowes silt loam, 2 to 4 percent slopes-----	467	0.1
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	11,831	2.9
3776A	Comfrey loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	320	*
Total-----		390,458	96.2

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Henry County

Henry County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
17A	Keomah silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	442	*
43A	Ipava silt loam, 0 to 2 percent slopes-----	29,825	5.6
45A	Denny silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	412	*
51A	Muscataune silt loam, 0 to 2 percent slopes-----	20,291	3.8
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	7,356	1.4
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	5,467	1
69A	Milford silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,840	0.5
81A	Littleton silt loam, 0 to 2 percent slopes-----	547	0.1
86B	Oscos silt loam, 2 to 5 percent slopes-----	41,688	7.9
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	1,429	0.3
87B	Dickinson sandy loam, 2 to 5 percent slopes-----	2,286	0.4
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded-----	18	*
87C2	Dickinson sandy loam, 5 to 10 percent slopes, eroded-----	626	0.1
102A	La hogue loam, 0 to 2 percent slopes-----	1,185	0.2
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,858	0.9
148B	Proctor silt loam, 2 to 5 percent slopes-----	4,677	0.9
149A	Brenton silt loam, 0 to 2 percent slopes-----	1,697	0.3
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	12,313	2.3
153A	Pella silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	2,906	0.6
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	896	0.2
198A	Elburn silt loam, 0 to 2 percent slopes-----	14,612	2.8
199A	Plano silt loam, 0 to 2 percent slopes-----	2,389	0.5
199B	Plano silt loam, 2 to 5 percent slopes-----	8,036	1.5
200A	Orio loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,300	0.4
201A	Gilford fine sandy loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,835	0.3
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,230	0.6
212B	Thebes silt loam, 2 to 5 percent slopes-----	12	*
219A	Millbrook silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	3,681	0.7
257A	Clarksdale silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	1,929	0.4
259B	Assumption silt loam, 2 to 5 percent slopes-----	2,766	0.5
261A	Niota silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,377	0.6
262A	Denrock silt loam, 0 to 2 percent slopes-----	1,111	0.2
274B	Seaton silt loam, 2 to 5 percent slopes-----	3,312	0.6
275A	Joy silt loam, 0 to 2 percent slopes-----	2,133	0.4
279A	Rozetta silt loam, 0 to 2 percent slopes-----	813	0.2
279B	Rozetta silt loam, 2 to 5 percent slopes-----	39	*
280B	Fayette silt loam, 2 to 5 percent slopes-----	3,994	0.8
430A	Raddle silt loam, 0 to 2 percent slopes-----	353	*
430B	Raddle silt loam, 2 to 5 percent slopes-----	589	0.1
457A	Booker silty clay, 0 to 2 percent slopes (Prime farmland if drained)-----	5,081	1

## Appendix ZZ. Prime Farmland Definition and County Totals - Henry County

465A	Montgomery silty clay, 0 to 2 percent slopes (Prime farmland if drained)	2,240	0.4
485A	Richwood silt loam, 0 to 2 percent slopes-----	1,658	0.3
485B	Richwood silt loam, 2 to 5 percent slopes-----	1,601	0.3
487A	Joyce silt loam, 0 to 2 percent slopes-----	3,065	0.6
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,453	0.3
546B	Keltner silt loam, 2 to 5 percent slopes-----	574	0.1
564A	Waukegan silt loam, 0 to 2 percent slopes-----	2,736	0.5
564B	Waukegan silt loam 2 to 5 percent slopes-----	1,798	0.3
564B2	Waukegan silt loam, 2 to 5 percent slopes, eroded-----	10	*
565A	Tell silt loam 0 to 2 percent slopes-----	555	0.1
565B	Tell silt loam, 2 to 5 percent slopes-----	2,040	0.4
572A	Loran silt loam, 0 to 2 percent slopes-----	313	*
572B	Loran silt loam, 2 to 5 percent slopes-----	963	0.2
670A	Aholt silty clay, 0 to 2 percent slopes (Prime farmland if drained)-----	2,319	0.4
671A	Biggsville silt loam, 0 to 2 percent slopes-----	1,499	0.3
671B	Biggsville silt loam, 2 to 5 percent slopes-----	5,348	1
672A	Crescent loam, 0 to 2 percent slopes-----	297	*
672B	Crescent loam, 2 to 5 percent slopes-----	602	0.1
675A	Greenbush silt loam, 0 to 2 percent slopes-----	1,943	0.4
675B	Greenbush silt loam, 2 to 5 percent slopes-----	15,756	3
684B	Broadwell silt loam, 2 to 5 percent slopes-----	151	*
686A	Parkway silt loam, 0 to 2 percent slopes-----	909	0.2
686B	Parkway silt loam, 2 to 5 percent slopes-----	2,451	0.5
686B2	Parkway silt loam, 2 to 5 percent slopes, eroded-----	14	*
705A	Buckhart silt loam, 0 to 2 percent slopes-----	6,383	1.2
764A	Coyne fine sandy loam, 0 to 2 percent slopes-----	970	0.2
764B	Coyne loam, 2 to 5 percent slopes-----	1,135	0.2
767A	Prophetstown silt loam, 0 to 2 percent slopes (Prime farmland if drained)	2,006	0.4
871B	Lenzburg silty clay loam, 1 to 7 percent slopes-----	828	0.2
3070A	Beaucoup silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	2,964	0.6
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	18,956	3.6
3107+	Sawmill silt loam, 0 to 2 percent slopes, frequently flooded, overwash (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	14,196	2.7
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	7,507	1.4
3284A	Tice silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	1,858	0.4
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,086	0.2
3400A	Calco silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	729	0.1
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the		

## Appendix ZZ. Prime Farmland Definition and County Totals - Henry County

	growing season)-----	6,491	1.2
7302A	Ambraw clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	1,143	0.2
7404A	Titus silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	1,525	0.3
7654A	Moline silty clay, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	419	*
7682A	Medway loam, 0 to 2 percent slopes, rarely flooded-----	1,262	0.2
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash (Prime farmland if drained)-----	820	0.2
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	871	0.2
8284A	Tice silty clay loam, 0 to 2 percent slopes, occasionally flooded-----	579	0.1
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	6,281	1.2
8400A	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	333	*
8415A	Orion silt loam, 0 to 2 percent slopes, occasionally flooded-----	210	*
8492A	Normandy loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	443	*
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	508	*
	Total-----	333,149	63.1

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - JoDaviess County

Jo Daviess County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
36B	Tama silt loam, 2 to 5 percent slopes-----	10,790	2.7
41B	Muscatine silt loam, 1 to 3 percent slopes-----	6,305	1.6
61B	Atterberry siltloam, 1 to 3 percent slopes-----	3,040	0.8
68	Sable silty clay loam (Prime farmland if drained)-----	965	0.2
87A	Dickinson fine sandy loam, 0 to 3 percent slopes-----	430	0.1
172	Hoopeston loam-----	395	*
175B	Lamont fine sandy loam, 1 to 7 percent slopes-----	515	0.1
261	Niota silt loam (Prime farmland if drained)-----	555	0.1
274B2	Seaton silt loam, 2 to 5 percent slopes, eroded-----	505	0.1
278B	Stronghurst silt loam, 1 to 3 percent slopes-----	1,040	0.3
279B	Rozetta silt loam, 2 to 5 percent slopes-----	12,084	3.1
280B2	Fayette silt loam, 2 to 5 percent slopes, eroded-----	6,285	1.6
386B	Downs silt loam, 2 to 5 percent slopes-----	11,700	3
419B2	Flagg silt loam, 2 to 5 percent slopes, eroded-----	550	0.1
429B2	Palsgrove silt loam, 2 to 5 percent slopes, eroded-----	1,580	0.4
565B	Tell silt loam, 2 to 5 percent slopes-----	455	0.1
572B	Loran silty clay loam, 3 to 7 percent slopes-----	1,285	0.3
731B	Nasset silt loam, 2 to 5 percent slopes-----	640	0.2
732B	Appleriver silt loam, 2 to 5 percent slopes-----	1,090	0.3
745B	Shullsburg silt loam, 3 to 7 percent slopes-----	690	0.2
753B	Massbach silt loam, 2 to 5 percent slopes-----	1,150	0.3
3077	Huntsville silt loam, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	1,280	0.3
3333	Wakeland silt loam, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	6,220	1.6
3451	Lawson silt loam, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	4,440	1.1
3579	Beavercreek silt loam, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	8,550	2.2
7430B	Raddle silt loam, 1 to 4 percent slopes, rarely flooded-----	2,180	0.6
8070	Beaucoup silty clay loam, occasionally flooded (Prime farmland if drained)-----	2,515	0.6
8239	Dorchester silt loam, occasionally flooded-----	4,220	1.1
8284	Tice silt loam, occasionally flooded-----	2,290	0.6
8415	Orion silt loam, occasionally flooded-----	4,590	1.2
	Total-----	98,334	24.8

\* Less than 0.1 percent.



## Appendix ZZ. Prime Farmland Definition and County Totals - Kane County

Kane County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
23A	Blount silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	11	*
59A	Lisbon silt loam, 0 to 2 percent slopes-----	2,590	0.8
59B	Lisbon silt loam, 2 to 4 percent slopes-----	750	0.2
60C2	La rose loam, 5 to 10 percent slopes, eroded-----	575	0.2
62A	Herbert silt loam, 0 to 2 percent slopes (Prime farmland if drained)----	3,069	0.9
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,098	0.9
69A	Milford silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,683	1.4
104A	Virgil silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,358	0.7
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,291	0.4
146A	Elliott silt loam, 0 to 2 percent slopes-----	2,386	0.7
146B	Elliott silt loam, 2 to 4 percent slopes-----	1,244	0.4
148B	Proctor silt loam, 2 to 5 percent slopes-----	24	*
149A	Brenton silt loam, 0 to 2 percent slopes-----	6,507	1.9
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	54,208	16.2
154A	Flanagan silt loam, 0 to 2 percent slopes-----	4,206	1.3
171A	Catlin silt loam, 0 to 2 percent slopes-----	1,572	0.5
171B	Catlin silt loam, 2 to 5 percent slopes-----	1,467	0.4
193A	Mayville silt loam, 0 to 2 percent slopes-----	192	*
193B	Mayville silt loam, 2 to 5 percent slopes-----	7,770	2.3
198A	Elburn silt loam, 0 to 2 percent slopes-----	5,667	1.7
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,062	0.3
219A	Millbrook silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	3,791	1.1
221B	Parr silt loam, 2 to 5 percent slopes-----	473	0.1
221B2	Parr silt loam, 2 to 5 percent slopes, eroded-----	37	*
221C2	Parr silt loam, 5 to 10 percent slopes, eroded-----	258	*
223B	Varna silt loam, 2 to 4 percent slopes-----	5,324	1.6
223C2	Varna silt loam, 4 to 6 percent slopes, eroded-----	1,504	0.4
232A	Ashkum silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	4,327	1.3
233A	Birkbeck silt loam, 0 to 2 percent slopes-----	522	0.2
233B	Birkbeck silt loam, 2 to 5 percent slopes-----	1,163	0.3
236A	Sabina silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	789	0.2
242A	Kendall silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	156	*
290A	Warsaw loam, 0 to 2 percent slopes-----	890	0.3
290B	Warsaw loam, 2 to 4 percent slopes-----	1,022	0.3
297B	Ringwood silt loam, 2 to 4 percent slopes-----	4	*
298A	Beecher silt loam, 0 to 2 percent slopes (Prime farmland if drained)----	3,317	1
298B	Beecher silt loam, 2 to 4 percent slopes-----	1,356	0.4
325A	Dresden silt loam, 0 to 2 percent slopes-----	1,434	0.4
325B	Dresden silt loam, 2 to 4 percent slopes-----	7,987	2.4
325C2	Dresden silt loam, 4 to 6 percent slopes, eroded-----	2,197	0.7
327A	Fox silt loam, 0 to 2 percent slopes-----	759	0.2

## Appendix ZZ. Prime Farmland Definition and County Totals - Kane County

327B	Fox silt loam, 2 to 4 percent slopes-----	3,115	0.9
327C2	Fox silt loam, 4 to 6 percent slopes, eroded-----	2,468	0.7
329A	Will loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,965	0.6
330A	Peotone silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,222	0.7
343A	Kane silt loam, 0 to 2 percent slopes-----	1,703	0.5
348B	Wingate silt loam, 2 to 5 percent slopes-----	4,141	1.2
356A	Elpaso silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	11,764	3.5
361B	Kidder loam, 2 to 4 percent slopes-----	459	0.1
361C2	Kidder loam, 4 to 6 percent slopes, eroded-----	305	*
369A	Waupecan silt loam, 0 to 2 percent slopes-----	3,609	1.1
369B	Waupecan silt loam, 2 to 4 percent slopes-----	1,667	0.5
442A	Mundelein silt loam, 0 to 2 percent slopes-----	2,336	0.7
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,769	0.5
512A	Danabrook silt loam, 0 to 2 percent slopes-----	1,230	0.4
512B	Danabrook silt loam, 2 to 5 percent slopes-----	11,686	3.5
523A	Dunham silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	1,339	0.4
526A	Grundelein silt loam, 0 to 2 percent slopes-----	321	*
527B	Kidami silt loam, 2 to 4 percent slopes-----	6,081	1.8
527C2	Kidami loam, 4 to 6 percent slopes, eroded-----	8,926	2.7
529A	Selma silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	324	*
530B	Ozaukee silt loam, 2 to 4 percent slopes-----	5,126	1.5
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded-----	2,415	0.7
531B	Markham silt loam, 2 to 4 percent slopes-----	4,397	1.3
531C2	Markham silt loam, 4 to 6 percent slopes, eroded-----	2,042	0.6
541B	Graymont silt loam, 2 to 5 percent slopes-----	123	*
570B	Martinsville silt loam, 2 to 4 percent slopes-----	2,051	0.6
570C2	Martinsville silt loam, 4 to 6 percent slopes, eroded-----	418	0.1
614A	Chenoa silty clay loam, 0 to 2 percent slopes-----	98	*
626A	Kish loam, 0 to 2 percent slopes (Prime farmland if drained)-----	80	*
656B	Octagon silt loam, 2 to 4 percent slopes-----	6,906	2.1
656C2	Octagon silt loam, 4 to 6 percent slopes, eroded-----	6,221	1.9
662A	Barony silt loam, 0 to 2 percent slopes-----	2,026	0.6
662B	Barony silt loam, 2 to 5 percent slopes-----	6,517	1.9
663A	Clare silt loam, 0 to 2 percent slopes-----	2,365	0.7
663B	Clare silt loam, 2 to 5 percent slopes-----	3,142	0.9
667A	Kaneville silt loam, 0 to 2 percent slopes-----	1,789	0.5
667B	Kaneville silt loam, 2 to 5 percent slopes-----	1,637	0.5
668A	Somonauk silt loam, 0 to 2 percent slopes-----	870	0.3
668B	Somonauk silt loam, 2 to 5 percent slopes-----	4,063	1.2
679B	Blackberry silt loam, 2 to 5 percent slopes-----	836	0.2
680A	Campton silt loam, 0 to 2 percent slopes-----	311	*
680B	Campton silt loam, 2 to 5 percent slopes-----	772	0.2
696B	Zurich silt loam 2 to 4 percent slopes-----	1,098	0.3
697A	Wauconda silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,272	0.4
739B	Milton silt loam, 2 to 6 percent slopes-----	231	*
791A	Rush silt loam, 0 to 2 percent slopes-----	465	0.1
791B	Rush silt loam, 2 to 4 percent slopes-----	1,096	0.3
792A	Bowes silt loam, 0 to 2 percent slopes-----	2,558	0.8
792B	Bowes silt loam, 2 to 4 percent slopes-----	2,294	0.7
792C2	Bowes silt loam, 4 to 6 percent slopes, eroded-----	268	*
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime		

## Appendix ZZ. Prime Farmland Definition and County Totals - Kane County

	farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	4,187	1.2
3082A	Millington silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,541	0.5
8076A	Otter silt loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	289	*
8082A	Millington silt loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	1,320	0.4
	Total-----	280,294	83.5

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Lee County

Lee County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
45A	Denny silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	370	*
51A	Muscataune silt loam, 0 to 2 percent slopes-----	18,634	4
60B2	La rose silt loam, 2 to 5 percent slopes, eroded-----	675	0.1
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,428	0.7
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	12,540	2.7
86B	Osco silt loam, 2 to 5 percent slopes-----	28,679	6.1
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	2,330	0.5
87B	Dickinson sandy loam, 2 to 5 percent slopes-----	5,497	1.2
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded-----	209	*
102A	La hogue loam, 0 to 2 percent slopes-----	5,527	1.2
106B	Hitt sandy loam, 2 to 5 percent slopes-----	554	0.1
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	7,974	1.7
145B2	Saybrook silt loam, 2 to 5 percent slopes, eroded-----	14,736	3.2
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	17,470	3.7
152A+	Drummer silt loam, 0 to 2 percent slopes, overwash (Prime farmland if drained)-----	680	0.1
154A	Flanagan silt loam, 0 to 2 percent slopes-----	5,846	1.3
171B	Catlin silt loam, 2 to 5 percent slopes-----	31,161	6.7
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	4,637	1
198A	Elburn silt loam, 0 to 2 percent slopes-----	12,642	2.7
200A	Orio loam, 0 to 2 percent slopes (Prime farmland if drained)-----	5,998	1.3
201A	Gilford fine sandy loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,817	1
204B2	Ayr sandy loam, 2 to 5 percent slopes, eroded-----	3,754	0.8
221B2	Parr silt loam, 2 to 5 percent slopes, eroded-----	27	*
221C2	Parr silt loam, 5 to 10 percent slopes, eroded-----	76	*
233B	Birkbeck silt loam, 2 to 5 percent slopes-----	1,308	0.3
243A	St. charles silt loam, 0 to 2 percent slopes-----	214	*
243B	St. charles silt loam, 2 to 5 percent slopes-----	439	*
244A	Hartsburg silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	166	*
280B	Fayette silt loam, 2 to 5 percent slopes-----	3,119	0.7
290A	Warsaw loam, 0 to 2 percent slopes-----	424	*
290B2	Warsaw silt loam, 2 to 5 percent slopes, eroded-----	1,001	0.2
329A	Will loam, 0 to 2 percent slopes (Prime farmland if drained)-----	795	0.2
330A	Peotone silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	76	*
332A	Billett fine sandy loam, 0 to 2 percent slopes-----	552	0.1
332B	Billett fine sandy loam, 2 to 5 percent slopes-----	1,601	0.3
355A	Binghampton sandy loam, 0 to 2 percent slopes-----	7,803	1.7
356A	Elpaso silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	12,662	2.7
357B	Vanpetten loam, 2 to 5 percent slopes-----	6,860	1.5

## Appendix ZZ. Prime Farmland Definition and County Totals - Lee County

369A	Waupecan silt loam, 0 to 2 percent slopes-----	5,195	1.1
369B2	Waupecan silt loam, 2 to 5 percent slopes, eroded-----	468	0.1
379B2	Dakota sandy loam, 2 to 5 percent slopes, eroded-----	5,161	1.1
411B	Ashdale silt loam, 2 to 5 percent slopes-----	463	*
440A	Jasper loam, 0 to 2 percent slopes-----	1,909	0.4
440B	Jasper loam, 2 to 5 percent slopes-----	6,426	1.4
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,826	0.4
490A	Odell silt loam, 0 to 2 percent slopes-----	4,583	1
501A	Morocco loamy fine sand, 0 to 2 percent slopes (Prime farmland if irrigated)-----	732	0.2
503B	Rockton silt loam, 2 to 5 percent slopes-----	1,065	0.2
509B	Whalan loam, 2 to 5 percent slopes-----	260	*
512B	Danabrook silt loam, 2 to 5 percent slopes-----	558	0.1
523A	Dunham silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	8,841	1.9
526A	Grundelein silt loam, 0 to 2 percent slopes-----	3,255	0.7
527B	Kidami silt loam, 2 to 4 percent slopes-----	9	*
527C2	Kidami loam, 4 to 6 percent slopes, eroded-----	111	*
570A	Martinsville silt loam, 0 to 2 percent slopes-----	468	0.1
570B	Martinsville silt loam, 2 to 5 percent slopes-----	1,460	0.3
610A	Tallmadge sandy loam, 0 to 2 percent slopes (Prime farmland if drained)--	309	*
618B	Senachwine silt loam, 2 to 5 percent slopes-----	263	*
622B	Wyanet silt loam, 2 to 5 percent slopes-----	6,479	1.4
622B2	Wyanet silt loam, 2 to 5 percent slopes, eroded-----	10,151	2.2
647A	Lawler loam, 0 to 2 percent slopes-----	86	*
648A	Clyde clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	15,335	3.3
649A	Nachusa silt loam, 0 to 2 percent slopes-----	7,583	1.6
650B	Prairieville silt loam, 2 to 5 percent slopes-----	3,992	0.9
675B	Greenbush silt loam, 2 to 5 percent slopes-----	4,786	1
679B	Blackberry silt loam, 2 to 5 percent slopes-----	5,274	1.1
686B	Parkway silt loam, 2 to 5 percent slopes-----	1,142	0.2
705A	Buckhart silt loam, 0 to 2 percent slopes-----	3,776	0.8
715A	Arrowsmith silt loam, 0 to 2 percent slopes-----	24	*
727A	Waukee loam, 0 to 2 percent slopes-----	4,894	1
742B2	Dickinson sandy loam, loamy substratum, 1 to 5 percent slopes, eroded----	1,705	0.4
742C2	Dickinson sandy loam, loamy substratum, 5 to 10 percent slopes, eroded---	364	*
756B	Wyanet fine sandy loam, 2 to 5 percent slopes-----	3,759	0.8
756C2	Wyanet fine sandy loam, 5 to 10 percent slopes, eroded-----	1,044	0.2
757B2	Senachwine fine sandy loam, 2 to 5 percent slopes, eroded-----	598	0.1
781B	Friesland fine sandy loam, 2 to 5 percent slopes-----	849	0.2
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	83	*
3302A	Ambraw sitly clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	5	*
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	1,300	0.3
7073A	Ross silt loam, 0 to 2 percent slopes, rarely flooded-----	1,172	0.3
7682A	Medway loam, 0 to 2 percent slopes, rarely flooded-----	901	0.2
8067A	Harpster silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	5,858	1.3

## Appendix ZZ. Prime Farmland Definition and County Totals - Lee County

8076A	Otter silt loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	1,285	0.3
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	11,202	2.4
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	15,376	3.3
8321A	Du page silt loam, 0 to 2 percent slopes, occasionally flooded-----	331	*
8404A	Titus silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	936	0.2
8451A	Lawson silt loam, 0 to 2 percent slopes, occasionally flooded-----	188	*
8492A	Normandy loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	4,715	1
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	4,851	1
8776A	Comfrey loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	6,054	1.3
	Total-----	394,741	84.6

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - McHenry County

McHenry County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
59A	Lisbon silt loam, 0 to 2 percent slopes-----	2,014	0.5
59B	Lisbon silt loam, 2 to 4 percent slopes-----	1,181	0.3
60C2	La rose loam, 5 to 10 percent slopes, eroded-----	1,042	0.3
62A	Herbert silt loam, 0 to 2 percent slopes (Prime farmland if drained)----	1,181	0.3
67A	Harpster silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,686	0.9
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	4,532	1.2
87B	Dickinson sandy loam, 2 to 5 percent slopes-----	1,329	0.3
87B2	Dickinson sandy loam, 2 to 5 percent slopes, eroded-----	132	*
104A	Virgil silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,280	0.6
134A	Camden silt loam, 0 to 2 percent slopes-----	1,299	0.3
134B	Camden silt loam, 2 to 5 percent slopes-----	1,236	0.3
146A	Elliott silt loam, 0 to 2 percent slopes-----	1,817	0.5
146B	Elliott silt loam, 2 to 4 percent slopes-----	3,071	0.8
148A	Proctor silt loam, 0 to 2 percent slopes-----	3,034	0.8
148B	Proctor silt loam, 2 to 5 percent slopes-----	2,075	0.5
149A	Brenton silt loam, 0 to 2 percent slopes-----	6,528	1.7
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,973	0.8
153A	Pella silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	20,872	5.3
153A+	Pella silt loam, 0 to 2 percent slopes, overwash (Prime farmland if drained)-----	1,479	0.4
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	834	0.2
189A	Martinton silt loam, 0 to 2 percent slopes-----	294	*
197A	Troxel silt loam, 0 to 2 percent slopes-----	1,655	0.4
198A	Elburn silt loam, 0 to 2 percent slopes-----	5,438	1.4
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,471	0.4
219A	Millbrook silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	3,466	0.9
221B	Parr silt loam, 2 to 5 percent slopes-----	5,047	1.3
223B	Varna silt loam, 2 to 4 percent slopes-----	4,672	1.2
223C2	Varna silt loam, 4 to 6 percent slopes, eroded-----	3,404	0.9
228B	Nappanee silt loam, 2 to 4 percent slopes-----	284	*
232A	Ashkum silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	4,963	1.3
290A	Warsaw loam, 0 to 2 percent slopes-----	4,653	1.2
290B	Warsaw loam, 2 to 4 percent slopes-----	6,755	1.7
290C2	Warsaw loam, 4 to 6 percent slopes, eroded-----	1,846	0.5
297A	Ringwood silt loam, 0 to 2 percent slopes-----	3,447	0.9
297B	Ringwood silt loam, 2 to 4 percent slopes-----	16,839	4.3
298B	Beecher silt loam, 2 to 4 percent slopes-----	534	0.1
310B	Mchenry silt loam, 2 to 4 percent slopes-----	13,321	3.4
325A	Dresden silt loam, 0 to 2 percent slopes-----	1,005	0.3
325B	Dresden silt loam, 2 to 4 percent slopes-----	2,522	0.6
327A	Fox silt loam, 0 to 2 percent slopes-----	1,123	0.3
327B	Fox silt loam, 2 to 4 percent slopes-----	7,484	1.9

## Appendix ZZ. Prime Farmland Definition and County Totals - McHenry County

327C2	Fox silt loam, 4 to 6 percent slopes, eroded-----	4,632	1.2
329A	Will loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,356	0.9
330A	Peotone silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	990	0.3
343A	Kane silt loam, 0 to 2 percent slopes-----	4,330	1.1
344A	Harvard silt loam, 0 to 2 percent slopes-----	562	0.1
344B	Harvard silt loam, 2 to 5 percent slopes-----	486	0.1
361B	Kidder loam, 2 to 4 percent slopes-----	898	0.2
361C	Kidder loam, 4 to 6 percent slopes-----	2,054	0.5
361C2	Kidder loam, 4 to 6 percent slopes, eroded-----	10,855	2.8
363B	Griswold loam, 2 to 4 percent slopes-----	645	0.2
363C2	Griswold loam, 4 to 6 percent slopes, eroded-----	6,109	1.6
369A	Waupecan silt loam, 0 to 2 percent slopes-----	6,222	1.6
369B	Waupecan silt loam, 2 to 4 percent slopes-----	2,336	0.6
379A	Dakota loam, 0 to 2 percent slopes-----	8,146	2.1
379B	Dakota loam, 2 to 4 percent slopes-----	750	0.2
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,676	1.2
503B	Rockton silt loam, 2 to 6 percent slopes-----	78	*
512A	Danabrook silt loam, 0 to 2 percent slopes-----	204	*
512B	Danabrook silt loam, 2 to 5 percent slopes-----	2,533	0.6
523A	Dunham silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	12,655	3.2
526A	Grundelein silt loam, 0 to 2 percent slopes-----	7,483	1.9
527B	Kidami silt loam, 2 to 4 percent slopes-----	7,158	1.8
527C	Kidami silt loam, 4 to 6 percent slopes-----	2,831	0.7
527C2	Kidami loam, 4 to 6 percent slopes, eroded-----	9,900	2.5
528A	Lahoguess loam, 0 to 2 percent slopes-----	3,668	0.9
529A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,095	0.8
530B	Ozaukee silt loam, 2 to 4 percent slopes-----	1,454	0.4
543B	Piscasaw silt loam, 2 to 4 percent slopes-----	4,098	1
544A	Torox silt loam, 0 to 2 percent slopes-----	1,346	0.3
545A	Windere silt loam, 0 to 2 percent slopes-----	367	*
545B	Windere silt loam, 2 to 4 percent slopes-----	790	0.2
557A	Millstream silt loam, 0 to 2 percent slopes-----	5,328	1.4
570A	Martinsville silt loam, 0 to 2 percent slopes-----	565	0.1
570B	Martinsville silt loam, 2 to 4 percent slopes-----	864	0.2
570C2	Martinsville silt loam, 4 to 6 percent slopes, eroded-----	492	0.1
624B	Caprell silt loam, 2 to 4 percent slopes-----	739	0.2
624C2	Caprell silt loam, 4 to 6 percent slopes, eroded-----	1,552	0.4
625A	Geryune silt loam, 0 to 2 percent slopes-----	325	*
625B	Geryune silt loam, 2 to 5 percent slopes-----	269	*
626A	Kish loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,507	0.9
635A	Lismod silt loam, 0 to 2 percent slopes-----	357	*
635B	Lismod silt loam, 2 to 4 percent slopes-----	39	*
636B	Parmod silt loam, 2 to 5 percent slopes-----	24	*
656B	Octagon silt loam, 2 to 4 percent slopes-----	1,422	0.4
656C2	Octagon silt loam, 4 to 6 percent slopes, eroded-----	743	0.2
791A	Rush silt loam, 0 to 2 percent slopes-----	1,327	0.3
791B	Rush silt loam, 2 to 4 percent slopes-----	3,157	0.8
791C2	Rush silt loam, 4 to 6 percent slopes, eroded-----	747	0.2
792A	Bowes silt loam, 0 to 2 percent slopes-----	1,351	0.3
792B	Bowes silt loam, 2 to 4 percent slopes-----	1,597	0.4
8082A	Millington silt loam, 0 to 2 percent slopes, occasionally flooded (Prime		



## Appendix ZZ. Prime Farmland Definition and County Totals - McHenry County

	farmland if drained)-----	2,460	0.6
8776A	Comfrey loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	6,538	1.7
	Total-----	<u>300,928</u>	<u>76.9</u>

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Ogle County

Ogle County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
21B	Pecatonica silt loam, 2 to 5 percent slopes-----	529	0.1
24B	Dodge silt loam, 2 to 5 percent slopes-----	753	0.2
51A	Muscatune silt loam, 0 to 2 percent slopes-----	9,838	2
55B	Sidell silt loam, 2 to 5 percent slopes-----	1,288	0.3
61A	Atterberry silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	1,484	0.3
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	2,100	0.4
86A	Osco silt loam, 0 to 2 percent slopes-----	7,040	1.4
86B	Osco silt loam, 2 to 5 percent slopes-----	54,983	11.3
87B	Dickinson sandy loam, 2 to 5 percent slopes-----	2,623	0.5
87C	Dickinson sandy loam, 5 to 10 percent slopes (Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season)-----	519	0.1
102A	La hogue loam, 0 to 2 percent slopes-----	6,851	1.4
105B	Batavia silt loam, 2 to 5 percent slopes-----	710	0.1
106B	Hitt sandy loam, 2 to 5 percent slopes-----	574	0.1
125A	Selma loam, 0 to 2 percent slopes (Prime farmland if drained)-----	9,228	1.9
145B	Saybrook silt loam, 2 to 5 percent slopes-----	6,739	1.4
145B2	Saybrook silt loam, 2 to 5 percent slopes, eroded-----	156	*
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	19,010	3.9
154A	Flanagan silt loam, 0 to 2 percent slopes-----	3,032	0.6
171A	Catlin silt loam, 0 to 2 percent slopes-----	1,370	0.3
171B	Catlin silt loam, 2 to 5 percent slopes-----	10,152	2.1
175B	Lamont sandy loam, 2 to 5 percent slopes-----	893	0.2
198A	Elburn silt loam, 0 to 2 percent slopes-----	13,777	2.8
199A	Plano silt loam, 0 to 2 percent slopes-----	7,140	1.5
199B	Plano silt loam, 2 to 5 percent slopes-----	10,925	2.2
219A	Millbrook silt loam, 0 to 2 percent slopes (Prime farmland if drained)---	1,128	0.2
223B	Varna silt loam, 2 to 4 percent slopes-----	705	0.1
233B	Birkbeck silt loam, 2 to 5 percent slopes-----	2,416	0.5
242A	Kendall silt loam, 0 to 2 percent slopes (Prime farmland if drained)----	958	0.2
243A	St. charles silt loam, 0 to 2 percent slopes-----	556	0.1
243B	St. charles silt loam, 2 to 5 percent slopes-----	3,190	0.7
259B	Assumption silt loam, 2 to 5 percent slopes-----	463	*
278A	Stronghurst silt loam, 0 to 2 percent slopes (Prime farmland if drained)-	875	0.2
279A	Rozetta silt loam, 0 to 2 percent slopes-----	1,264	0.3
280B	Fayette silt loam, 2 to 5 percent slopes-----	12,580	2.6
290A	Warsaw loam, 0 to 2 percent slopes-----	7	*
290B	Warsaw loam, 2 to 5 percent slopes-----	1,073	0.2
290B2	Warsaw silt loam, 2 to 5 percent slopes, eroded-----	49	*
324B	Ripon silt loam, 2 to 5 percent slopes-----	395	*
327B	Fox loam, 2 to 5 percent slopes-----	191	*
355A	Binghampton sandy loam, 0 to 2 percent slopes-----	21	*
356A	Elpaso silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)	1,905	0.4

## Appendix ZZ. Prime Farmland Definition and County Totals - Ogle County

361B	Kidder loam, 2 to 4 percent slopes-----	589	0.1
363B	Griswold loam, 2 to 4 percent slopes-----	1,976	0.4
387A	Ockley silt loam, 0 to 2 percent slopes-----	346	*
387B	Ockley silt loam, 2 to 5 percent slopes-----	416	*
410B	Woodbine silt loam, 2 to 5 percent slopes-----	153	*
411B	Ashdale silt loam, 2 to 5 percent slopes-----	6,239	1.3
412B	Ogle silt loam, 2 to 5 percent slopes-----	12,180	2.5
414B	Myrtle silt loam, 2 to 5 percent slopes-----	2,323	0.5
416B	Durand silt loam, 2 to 5 percent slopes-----	531	0.1
419B	Flagg silt loam, 2 to 5 percent slopes-----	4,606	0.9
429B	Palsgrove silt loam, 2 to 5 percent slopes-----	1,950	0.4
440A	Jasper loam, 0 to 2 percent slopes-----	6,517	1.3
440B	Jasper loam, 2 to 5 percent slopes-----	16,891	3.5
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,783	0.8
490A	Odell loam, 0 to 2 percent slopes-----	2,785	0.6
503B	Rockton silt loam, 2 to 5 percent slopes-----	2,259	0.5
506B	Hitt silt loam, 2 to 5 percent slopes-----	54	*
509B	Whalan loam, 2 to 5 percent slopes-----	574	0.1
512A	Danabrook silt loam, 0 to 2 percent slopes-----	3	*
512B	Danabrook silt loam, 2 to 5 percent slopes-----	370	*
570A	Martinsville silt loam, 0 to 2 percent slopes-----	1,273	0.3
570B	Martinsville silt loam, 2 to 5 percent slopes-----	6,384	1.3
618B	Senachwine loam, 2 to 5 percent slopes-----	894	0.2
622B	Wyanet silt loam, 2 to 5 percent slopes-----	6,813	1.4
623A	Kishwaukee silt loam, 0 to 2 percent slopes-----	1,078	0.2
623B	Kishwaukee silt loam, 2 to 5 percent slopes-----	737	0.2
661B	Atkinson silt loam, 2 to 5 percent slopes-----	1,052	0.2
663A	Clare silt loam, 0 to 2 percent slopes-----	1	*
663B	Clare silt loam, 2 to 5 percent slopes-----	32	*
675A	Greenbush silt loam, 0 to 2 percent slopes-----	715	0.1
675B	Greenbush silt loam, 2 to 5 percent slopes-----	14,340	2.9
679B	Blackberry silt loam, 2 to 5 percent slopes-----	8	*
686B	Parkway silt loam, 2 to 5 percent slopes-----	3,671	0.8
727A	Waukee loam, 0 to 2 percent slopes-----	39	*
727B	Waukee loam, 2 to 5 percent slopes-----	945	0.2
742B	Dickinson sandy loam, loamy substratum, 1 to 5 percent slopes-----	2,224	0.5
742B2	Dickinson sandy loam, loamy substratum, 2 to 5 percent slopes, eroded----	4	*
742C	Dickinson sandy loam, loamy substratum, 5 to 10 percent slopes-----	416	*
761B	Elewa fine sandy loam, 2 to 7 percent slopes-----	540	0.1
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	6,543	1.3
3082A	Millington silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	504	0.1
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	3,143	0.6
3321A	Du page silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	1,299	0.3
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (Prime		

## Appendix ZZ. Prime Farmland Definition and County Totals - Ogle County

	farmland if protected from flooding or not frequently flooded during the growing season)-----	2,331	0.5
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	16,277	3.3
3776A	Comfrey loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	9,550	2
8073A	Ross loam, 0 to 2 percent slopes, occasionally flooded-----	1,132	0.2
8077A	Huntsville silt loam, 0 to 2 percent slopes, occasionally flooded-----	1,475	0.3
	Total-----	347,455	71.1

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Rock Island County

Rock Island County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
45A	Denny silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	290	0.1
51A	Muscatune silt loam, 0 to 2 percent slopes-----	14,387	5
61A	Atterberry silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	2,924	1
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	1,554	0.5
86B	Oscos silt loam, 2 to 5 percent slopes-----	7,336	2.5
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	3,605	1.2
87C2	Dickinson sandy loam, 5 to 10 percent slopes, eroded-----	171	*
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	397	0.1
212B	Thebes silt loam, 2 to 5 percent slopes-----	651	0.2
261A	Niota silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,179	0.4
274B	Seaton silt loam, 2 to 5 percent slopes-----	1,038	0.4
274B2	Seaton silt loam, 2 to 5 percent slopes, eroded-----	2,102	0.7
275A	Joy silt loam, 0 to 2 percent slopes-----	785	0.3
278A	Stronghurst silt loam, 0 to 2 percent slopes (Prime farmland if drained)-	2,667	0.9
279A	Rozetta silt loam, 0 to 2 percent slopes-----	4,627	1.6
279B	Rozetta silt loam, 2 to 5 percent slopes-----	190	*
280B	Fayette silt loam, 2 to 5 percent slopes-----	28,659	9.9
280B2	Fayette silt loam, 2 to 5 percent slopes, eroded-----	3,137	1.1
317A	Millsdale silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	498	0.2
430A	Raddle silt loam, 0 to 2 percent slopes-----	3,526	1.2
430B	Raddle silt loam, 2 to 5 percent slopes-----	2,393	0.8
525A	Joslin loam, bedrock substratum, 0 to 2 percent slopes-----	518	0.2
570B	Martinsville silt loam, 2 to 5 percent slopes-----	738	0.3
647A	Lawler loam, 0 to 2 percent slopes-----	599	0.2
671A	Biggsville silt loam, 0 to 2 percent slopes-----	983	0.3
671B	Biggsville silt loam, 2 to 5 percent slopes-----	4,365	1.5
675A	Greenbush silt loam, 0 to 2 percent slopes-----	2,232	0.8
675B	Greenbush silt loam, 2 to 5 percent slopes-----	5,703	2
705A	Buckhart silt loam, 0 to 2 percent slopes-----	1,195	0.4
727A	Waukee loam, 0 to 2 percent slopes-----	1,618	0.6
763A	Joslin silt loam, 0 to 2 percent slopes-----	1,575	0.5
763B	Joslin silt loam, 2 to 5 percent slopes-----	328	0.1
764A	Coyne fine sandy loam, 0 to 2 percent slopes-----	4,339	1.5
774A	Saude loam, 0 to 2 percent slopes-----	355	0.1
961A	Burkhardt-saude complex, 0 to 2 percent slopes-----	771	0.3
3074A	Radford silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	4,669	1.6
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	2,440	0.8
3082A	Millington silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently		

## Appendix ZZ. Prime Farmland Definition and County Totals - Rock Island County

	flooded during the growing season)-----	1,489	0.5
3083A	Wabash silty clay, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	395	0.1
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	7,112	2.5
3239A	Dorchester silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,351	0.5
3400A	Calco silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,277	0.4
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	9,272	3.2
3428A	Coffeen silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	662	0.2
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	4,487	1.6
7076A	Otter silt loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	343	0.1
7083A	Wabash silty clay, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	565	0.2
7107A	Sawmill silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	4,137	1.4
7239A	Dorchester silt loam, 0 to 2 percent slopes, rarely flooded-----	397	0.1
7304A	Landes fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	376	0.1
7415A	Orion silt loam, 0 to 2 percent slopes, rarely flooded-----	1,520	0.5
7428A	Coffeen silt loam, 0 to 2 percent slopes, rarely flooded-----	5,896	2
7451A	Lawson silt loam, 0 to 2 percent slopes, rarely flooded-----	501	0.2
7654A	Moline silty clay, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	980	0.3
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash (Prime farmland if drained)-----	729	0.3
8302A	Ambraw loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	161	*
8400A	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	1,167	0.4
8404A	Titus silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	48	*
	Total-----	157,409	54.5

\* Less than 0.1 percent.

## Appendix ZZ. Prime Farmland Definition and County Totals - Stephenson County

Stephenson County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
21B	Pecatonica silt loam, 2 to 4 percent slopes-----	158	*
36A	Tama silt loam, 0 to 2 percent slopes-----	3,647	1
36B	Tama silt loam, 2 to 4 percent slopes-----	31,314	8.7
36C	Tama silt loam, 4 to 7 percent slopes-----	9,207	2.5
36C2	Tama silt loam, 4 to 7 percent slopes, eroded-----	4,717	1.3
40C	Dodgeville silt loam, 4 to 7 percent slopes-----	1,196	0.3
40C2	Dodgeville silt loam, 4 to 7 percent slopes, eroded-----	1,490	0.4
41A	Muscatine silt loam, 0 to 2 percent slopes-----	6,861	1.9
41B	Muscatine silt loam, 2 to 4 percent slopes-----	1,622	0.4
61A	Atterberry silt loam, 0 to 2 percent slopes-----	1,915	0.5
61B	Atterberry silt loam, 2 to 4 percent slopes-----	644	0.2
67	Harpster silty clay loam-----	295	*
68	Sable silty clay loam-----	3,203	0.9
74	Radford silt loam-----	17,642	4.9
76	Otter silt loam (Prime farmland if drained)-----	722	0.2
77	Huntsville silt loam-----	2,833	0.8
82	Millington silt loam (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	147	*
87B	Dickinson sandy loam, 2 to 4 percent slopes-----	148	*
87C2	Dickinson sandy loam, 4 to 7 percent slopes, eroded-----	92	*
104A	Virgil silt loam, 0 to 2 percent slopes-----	2,630	0.7
104B	Virgil silt loam, 2 to 4 percent slopes-----	898	0.2
105A	Batavia silt loam, 0 to 2 percent slopes-----	829	0.2
105B	Batavia silt loam, 2 to 4 percent slopes-----	2,916	0.8
105C	Batavia silt loam, 4 to 7 percent slopes-----	900	0.2
107	Sawmill silty clay loam (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	4,896	1.4
134B	Camden silt loam, 2 to 4 percent slopes-----	1,119	0.3
148A	Proctor silt loam, 0 to 2 percent slopes-----	311	*
148B	Proctor silt loam, 2 to 4 percent slopes-----	948	0.3
148C	Proctor silt loam, 4 to 7 percent slopes-----	362	0.1
148C2	Proctor silt loam, 4 to 7 percent slopes, eroded-----	1,316	0.4
152	Drummer silty clay loam (Prime farmland if drained)-----	1,368	0.4
171B	Catlin silt loam, 2 to 4 percent slopes-----	1,199	0.3
171C	Catlin silt loam, 4 to 7 percent slopes-----	1,370	0.4
171C2	Catlin silt loam, 4 to 7 percent slopes, eroded-----	649	0.2
198A	Elburn silt loam, 0 to 2 percent slopes-----	1,983	0.5
198B	Elburn silt loam, 2 to 4 percent slopes-----	442	0.1
199A	Plano silt loam, 0 to 2 percent slopes-----	1,709	0.5
199B	Plano silt loam, 2 to 4 percent slopes-----	6,412	1.8
199C	Plano silt loam, 4 to 7 percent slopes-----	1,387	0.4
199C2	Plano silt loam, 4 to 7 percent slopes, eroded-----	2,039	0.6
206	Thorp silt loam (Prime farmland if drained)-----	804	0.2
219	Millbrook silt loam (Prime farmland if drained)-----	465	0.1

## Appendix ZZ. Prime Farmland Definition and County Totals - Stephenson County

221B	Parr silt loam, 2 to 4 percent slopes-----	133	*	
221C	Parr silt loam, 4 to 7 percent slopes-----	176	*	
221C2	Parr silt loam, 4 to 7 percent slopes, eroded-----	314	*	
223C	Varna silt loam, 4 to 7 percent slopes-----	395		0.1
223C2	Varna silt loam, 4 to 7 percent slopes, eroded-----	401		0.1
227B	Argyle silt loam, 2 to 4 percent slopes-----	173	*	
227C	Argyle silt loam, 4 to 7 percent slopes-----	1,052		0.3
227C2	Argyle silt loam, 4 to 7 percent slopes, eroded-----	1,052		0.3
233B	Birkbeck silt loam, 2 to 4 percent slopes-----	126	*	
239	Dorchester silt loam-----	6,799		1.9
242A	Kendall silt loam, 0 to 2 percent slopes-----	750		0.2
242B	Kendall silt loam, 2 to 4 percent slopes-----	324	*	
243A	St. charles silt loam, 0 to 2 percent slopes-----	316	*	
243B	St. charles, 2 to 4 percent slopes-----	1,359		0.4
272	Edgington silt loam-----	220	*	
278	Stronghurst silt loam (Prime farmland if drained)-----	266	*	
279A	Rozetta silt loam, 0 to 2 percent slopes-----	541		0.1
279B	Rozetta silt loam, 2 to 4 percent slopes-----	4,952		1.4
280B	Fayette silt loam, 2 to 4 percent slopes-----	8,347		2.3
280C	Fayette silt loam, 4 to 7 percent slopes-----	7,375		2
290C2	Warsaw silt loam, 4 to 7 percent slopes, eroded-----	605		0.2
344A	Harvard silt loam, 0 to 2 percent slopes-----	155	*	
344B	Harvard silt loam, 2 to 4 percent slopes-----	855		0.2
344C	Harvard silt loam, 4 to 7 percent slopes-----	223	*	
344C2	Harvard silt loam, 4 to 7 percent slopes, eroded-----	539		0.1
386A	Downs silt loam, 0 to 2 percent slopes-----	603		0.2
386B	Downs silt loam, 2 to 4 percent slopes-----	14,117		3.9
386C	Downs silt loam, 4 to 7 percent slopes-----	6,943		1.9
386C2	Downs silt loam, 4 to 7 percent slopes, eroded-----	3,463		1
410B	Woodbine silt loam, 2 to 4 percent slopes-----	1,169		0.3
411B	Ashdale silt loam, 2 to 4 percent slopes-----	2,057		0.6
411C	Ashdale silt loam, 4 to 7 percent slopes-----	2,653		0.7
411C2	Ashdale silt loam, 4 to 7 percent slopes, eroded-----	2,429		0.7
412B	Ogle silt loam, 2 to 4 percent slopes-----	5,879		1.6
412C	Ogle silt loam, 4 to 7 percent slopes-----	4,813		1.3
412C2	Ogle silt loam, 4 to 7 percent slopes, eroded-----	2,378		0.7
414B	Myrtle silt loam, 2 to 4 percent slopes-----	2,236		0.6
414C	Myrtle silt loam, 4 to 7 percent slopes-----	2,959		0.8
414C2	Myrtle silt loam, 4 to 7 percent slopes, eroded-----	639		0.2
415	Orion silt loam-----	1,392		0.4
416B	Durand, 2 to 4 percent slopes-----	178	*	
416C	Durand siltloam, 4 to 7 percent slopes-----	639		0.2
416C2	Durand silt loam, 4 to 7 percent slopes, eroded-----	1,390		0.4
419B	Flagg silt loam, 2 to 4 percent slopes-----	1,734		0.5
429B	Palsgrove silt loam, 2 to 4 percent slopes-----	381		0.1
429C	Palsgrove silt loam, 4 to 7 percent slopes-----	2,488		0.7
451	Lawson silt loam-----	15,350		4.2
506B	Hitt silt loam, 2 to 4 percent slopes-----	2,613		0.7
506C	Hitt silt loam, 4 to 7 percent slopes-----	3,863		1.1
506C2	Hitt silt loam, 4 to 7 percent slopes, eroded-----	5,400		1.5
546B	Keltner silt loam, 2 to 4 percent slopes-----	230	*	
546C	Keltner silt loam, 4 to 7 percent slopes-----	636		0.2



## Appendix ZZ. Prime Farmland Definition and County Totals - Stephenson County

546C2	Keltner silt loam, 4 to 7 percent slopes, eroded-----	285	*	
547B	Eleroy silt loam, 2 to 4 percent slopes-----	203	*	
572B	Loran silt loam, 2 to 4 percent slopes-----	169	*	
572C	Loran silt loam, 4 to 7 percent slopes-----	199	*	
578	Dorchester silt loam, cobbly subsoil variant (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	555		0.2
656C2	Octagon silt loam, 4 to 7 percent slopes, eroded-----	458		0.1
731B	Nasset silt loam, 2 to 4 percent slopes-----	543		0.2
731C	Nasset silt loam, 4 to 7 percent slopes-----	1,814		0.5
731C2	Nasset silt loam, 4 to 7 percent slopes, eroded-----	1,057		0.3
743B	Ridott silt loam, 2 to 4 percent slopes-----	237	*	
743C	Ridott silt loam, 4 to 7 percent slopes-----	321	*	
745B	Shullsburg silt loam, 2 to 4 percent slopes-----	236	*	
745C	Shullsburg silt loam, 4 to 7 percent slopes-----	277	*	
745C2	Shullsburg silt loam, 4 to 7 percent slopes, eroded-----	325	*	
746B	Calamine silt loam, 1 to 3 percent slopes-----	62	*	
752C	Oneco silt loam, 4 to 7 percent slopes-----	2,488		0.7
752C2	Oneco silt loam, 4 to 7 percent slopes, eroded-----	1,546		0.4
753B	Massbach silt loam, 2 to 4 percent slopes-----	257	*	
753C	Massbach silt loam, 4 to 7 percent slopes-----	600		0.2
753C2	Massbach silt loam, 4 to 7 percent slopes, eroded-----	445		0.1
Total-----		262,962		72.8

## Appendix ZZ. Prime Farmland Definition and County Totals - Whiteside County

Whiteside County, Illinois

Print date: 02/21/2006

Prime Farmland with Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
51A	Muscature silt loam, 0 to 2 percent slopes-----	1,035	0.2
61A	Atterberry silt loam, 0 to 2 percent slopes (Prime farmland if drained)--	381	*
68A	Sable silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-	661	0.1
69A	Milford silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	954	0.2
81A	Littleton silt loam, 0 to 2 percent slopes-----	774	0.2
86B	Osco silt loam, 2 to 5 percent slopes-----	9,330	2.1
87A	Dickinson sandy loam, 0 to 2 percent slopes-----	20,113	4.5
87B2	Dickinson sandy loam, 2 to 7 percent slopes, eroded-----	7,447	1.7
104A	Virgil silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	1,928	0.4
152A	Drummer silty clay loam, 0 to 2 percent slopes (Prime farmland if drained)-----	12,820	2.9
172A	Hoopeston sandy loam, 0 to 2 percent slopes-----	899	0.2
175B2	Lamont fine sandy loam, 2 to 5 percent slopes, eroded-----	1,863	0.4
198A	Elburn silt loam, 0 to 2 percent slopes-----	8,872	2
200A	Orio loam, 0 to 2 percent slopes (Prime farmland if drained)-----	3,364	0.8
201A	Gilford fine sandy loam, 0 to 2 percent slopes (Prime farmland if drained)-----	876	0.2
206A	Thorp silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,219	0.5
261A	Niota silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	969	0.2
262A	Denrock silt loam, 0 to 2 percent slopes-----	973	0.2
268B	Mt. carroll silt loam, 2 to 5 percent slopes-----	5,986	1.3
274B	Seaton silt loam, 2 to 5 percent slopes-----	3,742	0.8
275A	Joy silt loam, 0 to 2 percent slopes-----	3,166	0.7
277B	Port byron silt loam, 2 to 5 percent slopes-----	8,262	1.9
279B	Rozetta silt loam, 2 to 5 percent slopes-----	1,061	0.2
280B	Fayette silt loam, 2 to 5 percent slopes-----	3,308	0.7
411B	Ashdale silt loam, 2 to 5 percent slopes-----	178	*
412B	Ogle silt loam, 2 to 5 percent slopes-----	1,289	0.3
430A	Raddle silt loam, 0 to 2 percent slopes-----	4,558	1
430B	Raddle silt loam, 2 to 5 percent slopes-----	1,809	0.4
485B	Richwood silt loam, 2 to 5 percent slopes-----	17,073	3.8
486B	Bertrand silt loam, 2 to 5 percent slopes-----	2,341	0.5
487A	Joyce silt loam, 0 to 2 percent slopes-----	5,043	1.1
488A	Hooppole loam, 0 to 2 percent slopes (Prime farmland if drained)-----	4,515	1
509B	Whalan loam, 2 to 5 percent slopes-----	592	0.1
529A	Selma silt loam, 0 to 2 percent slopes (Prime farmland if drained)-----	2,473	0.6
564A	Waukegan silt loam, 0 to 2 percent slopes-----	5,138	1.2
564B	Waukegan silt loam, 2 to 5 percent slopes-----	5,163	1.2
565B	Tell silt loam, 2 to 5 percent slopes-----	840	0.2
647A	Lawler loam, 0 to 2 percent slopes-----	8,229	1.8
675B	Greenbush silt loam, 2 to 5 percent slopes-----	13,518	3
686B	Parkway silt loam, 2 to 5 percent slopes-----	3,818	0.9
727A	Waukee loam, 0 to 2 percent slopes-----	4,989	1.1

## Appendix ZZ. Prime Farmland Definition and County Totals - Whiteside County

759A	Udolpho loam, sandy substratum, 0 to 2 percent slopes (Prime farmland if drained)-----	5,411	1.2
760A	Marshan loam, sandy substratum, 0 to 2 percent slopes (Prime farmland if drained)-----	17,391	3.9
763A	Joslin silt loam, 0 to 2 percent slopes-----	1,117	0.3
767A	Prophetstown silt loam, 0 to 2 percent slopes (Prime farmland if drained)	8,658	1.9
3076A	Otter silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,064	0.2
3077A	Huntsville silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	1,063	0.2
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	503	0.1
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	1,172	0.3
3321A	Du page silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	5,548	1.2
3400A	Calco silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	2,860	0.6
3404A	Titus silty clay loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season)-----	173	*
3415A	Orion silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	7,715	1.7
3428A	Coffeen silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	992	0.2
3451A	Lawson silt loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	4,813	1.1
3452A	Riley loam, 0 to 2 percent slopes, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)-----	436	*
7070A	Beaucoup silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	4,601	1
7073A	Ross silt loam, 0 to 2 percent slopes, rarely flooded-----	3,346	0.7
7076A	Otter silt loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	737	0.2
7082A	Millington clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	1,378	0.3
7107A	Sawmill silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	985	0.2
7302A	Ambraw clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	7,547	1.7
7345A	Elvers silt loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	754	0.2

## Appendix ZZ. Prime Farmland Definition and County Totals - Whiteside County

7404A	Titus silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	3,887	0.9
7428A	Coffeen silt loam, 0 to 2 percent slopes, rarely flooded-----	1,227	0.3
7452A	Riley loam, 0 to 2 percent slopes, rarely flooded-----	2,965	0.7
7516A	Faxon silty clay loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	612	0.1
7603A	Blackoar silt loam, 0 to 2 percent slopes, rarely flooded (Prime farmland if drained)-----	2,114	0.5
7682A	Medway loam, 0 to 2 percent slopes, rarely flooded-----	5,064	1.1
8107+	Sawmill silt loam, 0 to 2 percent slopes, occasionally flooded, overwash (Prime farmland if drained)-----	2,400	0.5
8166A	Cohoctah loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	3,023	0.7
8302A	Ambrow loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	8,695	1.9
8321A	Du page silt loam, 0 to 2 percent slopes, occasionally flooded-----	2,102	0.5
8400A	Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	290	*
8404A	Titus silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	578	0.1
8415A	Orion silt loam, 0 to 2 percent slopes, occasionally flooded-----	846	0.2
8451A	Lawson silt loam, 0 to 2 percent slopes, occasionally flooded-----	449	0.1
8452A	Riley loam, 0 to 2 percent slopes, occasionally flooded-----	673	0.2
8499A	Fella silty clay loam, 0 to 2 percent slopes, occasionally flooded (Prime farmland if drained)-----	661	0.1
Total-----		296,419	66.4

\* Less than 0.1 percent.